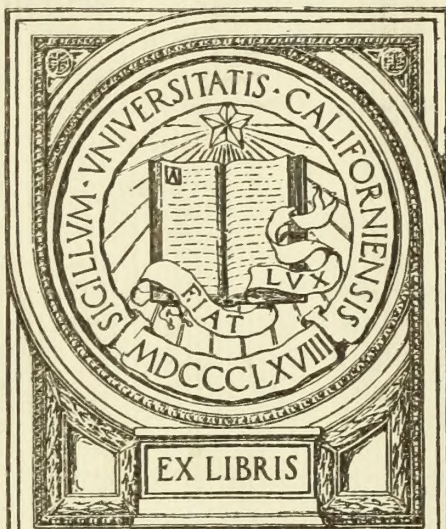



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Publication Committee:
DRS. HENRY C. BARKHORN, EDWARD J. ILL, LINN EMERSON,
J. BENNETT MORRISON
14 South Day Street, Orange, N. J.

Editor:
HENRY O. REIK, M.D., F.A.C.S.

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DISSERTATION ON THE STATE OF PHYSICK IN THE COLONY OF NEW JERSEY

Being Some Account of the Foundation of
the Medical Society of New Jersey

GEORGE H. LATHROPE, M.D.,
Newark, N. J.

FOREWORD

The genesis of this essay must be referred to personal ignorance of the subject to which inquiry among the writer's friends brought little light. It is offered for publication with the idea that a large number of the readers of the Journal share the early ignorance of the writer, and will be interested in such information as it may contain.

For whatever of merit or interest there may be discovered in the following pages by the reader, particular and full acknowledgement is hereby made to Doctor Stephen Wickes, whose "History of Medicine and Medical Men in New Jersey" is the chief source for the information used in compiling this sketch. If this publication serves no other purpose than to direct the attention of the members of the Medical Society of New Jersey to their great indebtedness to Stephen Wickes for his well nigh monumental work, it will have achieved sufficient reward. Doctor Wickes published his volume in 1879 after 5 years of unremitting research which took him from Boston to Washington in his inquiry for data and original records. Should our society ever

have a home of its own, a bronze tablet to Doctor Wickes placed on its walls would be a small recognition of his service in collocating and preserving the records of early New Jersey medicine.

ARRANGEMENT BY CHAPTERS

- I. The doctor—who he was, and how trained.
 - (a) Development of requirements for practice.
 - (b) The beginnings of legislation.
- II. His revenues and control of conduct.
 - (a) Fees and fee schedules.
 - (b) Regulations and restraints.
- III. His therapeutics and practice.
 - (a) Diseases encountered.
 - (b) Midwifery.
- IV. His professional progress.
 - (a) Literature.
 - (b) Development of medical education.
 - (c) Foundation of the New Jersey Medical Society.

We are forced irresistibly to the conviction that all the purposes and efforts of humanity are subjected to a silent, and often imperceptible, but invincible and ceaseless march of events.

—RANKE'S HISTORY OF THE POPES, 1:25

The state of physick in the Colony of New Jersey was, in its beginnings, of necessity primitive in character; but probably then, and throughout its development, may be fairly assumed to reflect, not too remotely, that of the same period in England, and to have been typical of that which prevailed elsewhere in colonial America.

The colony was founded, in reality, by the final conquest of the English in 1664; though small settlements had been made by the Dutch in 1623, and the Swedes in 1627 (Smith Hist. N. J.). The Dutch and Swedish efforts at settlement had never flourished or been of much promise. There was a marked ebb and flow in their vitality, and when one or the other was not being exterminated by the Indians, they were very apt to be busy demonstrating their mutual exclusiveness by 'trying to exterminate each other. Applied christianity, in the shape of tolerance and brotherly love between christian nations, was, in those days, as too often in these, not so much in evidence as a militant christianity, which bore its own special version of the Bible in one hand and a sword in the other. It was not a situation which made for enduring colonization; so that the final dominance of a stronger and more stable nation like the English marked the real start of provincial success.

In 1664 a royal charter from Charles II. granted the provinces of New York and New Jersey to the Duke of York, who immediately conveyed to Lord Berkely and Sir George Carteret the portion now known as New Jersey. Active emigration to America began about this time, and by 1700 the population of New Jersey was about 15000-20000. (Smith-Wickes).

This population was, of course, scattered; and while Burlington, Newark, Elizabethtown, New Brunswick, and a few other towns and villages had been settled by the early eighteenth century, it was as yet, from the viewpoint of today, an essentially rural, as distinct from an urban, population. Furthermore, being scattered, communication, by foot or by horse, was necessarily slow and meager.

Chapter I.

THE DOCTOR, WHO HE WAS AND HOW TRAINED

The earliest medical practice in such a frontier settlement must have been largely a matter of the application of home remedies by the housewife, and thus naturally fell into the hands of women; individuals here and there becoming more skilled, and acquiring reputa-

tion over others. Ministers of the gospel, highly educated men as a rule, early became an important factor, as they often studied medicine and law as well as divinity before leaving England, and besides their ability to administer potions could draw up wills, instruments and other papers. Beck states that for years after the settlement of New England "the functions of physician and divine were performed by the same individual". Schoolmasters, too, undertook the practice of medicine and surgery; as might any one who had a taste for reading combined with access to the few medical books of the day. The development of communities must reach a fairly advanced phase before they are ripe for a medical culture, or able to support pure medical practitioners.

With increasing population, demands grew apace and educated men began to take up the healing art more particularly; but along with them arose a flock of mountebanks and unskilled imposters, against whom, as late as 1750, Doctor Douglas of Boston inveighs bitterly in his "British Settlements in North America". To quote him: "Our American practitioners are so rash and officious, the saying of the Apocrypha may, with propriety, be applied to them: 'He that sinneth before his Maker, let him fall into the hands of a physician'." (Douglas, 2:350, 351, 383.)

Salmon's "Herbal", published in England 1696, containing 1300 pages, was the textbook of the New Jersey physician till as late as 1777 (Wickes). It might be obtained at a cost of £50. John Wesley, the Founder of Methodism, published a book on "Primitive Physick", which ran to 30 editions and was much used in the colonies.

In the earlier years of the eighteenth century the student lived for a year or two with some practitioner, used such books as he might have, and picked up what information he could, until he felt competent to go out for himself. There were at first no particular agreements or requirements; but soon, following the Old World method, the system of indenture came into vogue, just as with students of law and divinity.

While this custom was not obligatory, nor

universal, as there was no law to make it so, it may easily be surmised that it was followed by the better and more serious minded type of student; and under date of 1760, we have the following recorded *indentures* between a student and his preceptor, which evidences a fairly advanced degree of apprenticeship at that time: 'This Indenture made the Seventh day of August, in the Thirty-fourth year of his Majesty's reign George the Second, and in the year of Christ One Thousand Seven Hundred and Sixty, Witnesseth that Jacobus Hubbard Son of James Hubbard of Gravesend on Nassau Island and Province of New York Farmer, hath put himself & by these presents doth voluntarily and of his own free will and accord and by and with the consent of his Father and Mother put himself as an Apprentice unto William Clark of Freehold in Monmouth Co. in East New Jerseys Doctor and Surgeon, to be taught in the said practice of a Doctor and Surgeon, and in all the several branches of Physic which the said William Clark practices within the said town herein mentioned: and with him to live after the manner of such an Apprentice to continue and serve from the day of the date hereof unto the full end of Four Years and Eight months from thence next ensuing and fully to be compleated and ended. During all which Term the said Apprentice his said Master well and faithfully shall serve, his secrets keep, his lawful commands gladly every where obey. He shall do no damage to his said Master, nor see it to be done by others without letting or giving notice to his said Master. He shall not contract matrimony within the said term. At cards, dice or any other unlawful game he shall not play, whereby his said Master may have Damage. He shall not absent himself day or night from his said Master's Service without his leave, nor hant Ale houses Taverns or play houses, but in all things as a faithful Apprentice he shall behave himself towards his said Master all during his said term. And the Said Master during the Said term shall by the best of his Means or Methods Arts and Mysterys of a Physician and Surgeon as he now professes Teach or cause the said Apprentice to be Taught to perfection

in consideration of the sum of One Hundred Pounds Lawful money of New York to him in hand paid by the said James Hubbard (in four payments) that is to say Thirty Pounds in hand down, and the remainder in Four Equal payments, One each year till the whole is paid. And the said William Clark Acknowledges himself therewith contented and the Receipt thereof. And the said Master is to provide his said Apprentice with sufficient Meat Drink Washing and Lodging and Mending his said clothes within the Said term. And the said James Hubbard is to find him in wearing apparel during said term aforesaid. At the end of Said term the Said Master shall and will give unto the said Apprentice a new set of surgeon's pocket instruments—Soloman's Dispensatory, Quences Dispensatory and Fuller on Fevers, and for the true performance of all and every of the said covenants and agreements of Either of the said parties Do bind themselves Jointly and Severally to the other by these presents. In witness whereof they have hereunto set their hands and Seals the Day and Date first written.

Sealed & Delivered Jacobus Hubbard, L. S.
in the presence of Wm. Clark. L.S.

Pocket interlined before signing.

Johnnis Gerritson, James Hubbard. L.S.
Rich. Prest.

Receiv'd Thirty Pounds in part of the within this Seventh day of August 1760.

Wm.Clark.

1761 July ye then Received by ye hands of Mr. James Hubbard ye sum of £17.10/0 it being ye first payment of £17.10/0.

Received pr me Wm. Clark.
(Wickes Appx. D.)

The first *requirement*, of which any note can be found, is reported in the Transactions of the Medical Society of New Jersey for May 5, 1767. (This, it will be observed, was the second meeting of that society after its organization, and it may be assumed to be the first effort in the colony to control medical education or practice). The society noted that "the method of educating young gentle-

men for the study of physick had, * * in this Government * * * been very much neglected, greatly to the detriment of the profession, * * * and agreed "that for the advantages of youth and the honor of the art, no student be hereafter taken an apprentice by any member, unless he has a competent knowledge of Latin and some initiation in the Greek".

It was further agreed "that no member do hereafter take an apprentice for less than four years, of which three shall be spent with his master, and the other may (with his master's consent) be spent in some school of physick in Europe or America". £100 was agreed upon as the "fair fee" and no more than a bare acknowledgement for board during the above term.

It must be recollected that, with all this, Harvard College had been founded in 1640, Yale in 1701, Princeton in 1746, and Kings in 1754, and these institutions were graduating educated gentlemen, a certain number of whom were turning to the healing art. In a list of the medical men of this state who took a prominent part in the Revolution, Wickes names 44 who were college graduates. This represents a considerable leaven in the profession, of men of education, whose level of intellect would be as high as that of any group in the province.

The Instruments of Association and Constitutions of the New Jersey Medical Society drawn up and adopted at the organization meeting, July 23, 1766, closes with this paragraph: "Lastly, that this Society will do all in their power to discourage and discountenance all quacks, mountebanks, imposters, or other ignorant pretenders to medicine; and will on no account support or patronize any but those who have been regularly initiated into medicine, either at some University, or under the direction of some able master or masters, or who, by the study of the theory and of the practice of the art, have otherwise qualified themselves to the satisfaction of this Society for the exercise of their profession." (Transactions Vol. I.)

This is the first recorded creed in the colony, and is subscribed to by 14 brave but lonely men, who, with the courage of their

convictions, founded, by the instrument of which this is a part, the first stable medical organization in the New World.

As yet there was nothing in the laws of the colony to regulate, in any way whatsoever, the practice of medicine or surgery; but that the need for regulation was a real one, and that the society sought earnestly to live up to its declaration of principles, is evident from perusal of the minutes of the early meetings; and the first real effort at regulation was made a year after the foundation as has already been noted. After considerable and dilatory argument with the colonial legislators, strongly suggestive in its tone of our own latter day legislative excursions, an "Act to Regulate the Practice of Physick and Surgery within the Colony of New Jersey" was passed September 26, 1772. (Colonial Laws N.J. Vol. I.) It begins: "*Whereas* many ignorant and unskilful Persons in Physick and Surgery, to gain a Subsistence, do take upon themselves to administer Physick, and practice Surgery, in the Colony of New Jersey, to the endangering of the Lives and Limbs of their Patients, and many of His Majesty's Subjects, who have been persuaded to become their Patients, have been great Sufferers thereby; for the Prevention of such Abuses for the Future, * * *" etc.

Sec. 1. then provides for examination in Physick and Surgery, approval and admission, by any 2 judges of the Supreme Court, who will furnish the successful candidate with a certificate or testimonial, the form of which is then set forth.

Sec. 2. provides as penalty for practicing without such testimonial a fine of £5 for every such offence.

Sec. 3. provides that the law shall not be retroactive; nor shall it extend "to any Person bearing his Majesty's Commission, and employed in His Service as a Physician or Surgeon"; nor is it to "be construed to extend to hinder any Person or Persons from bleeding, drawing Teeth, or giving Assistance to any Person, for which Service such Persons shall not be entitled to make any Charge, or recover any Reward". It further exempts approved consultants from other colonies.

Sec. 4. provided that accounts shall be ren-

dered in "plain English words", and that all accounts shall be liable to legal question if desired by the debtor.

Sec. 5. provides a penalty of £20, against every Physician, Surgeon or Mountebank Doctor, who shall come into or travel through this Colony, and erect any Stage or Stages for the Sale of Drugs or Medicines of any Kind
* * * *

Sec. 6. provides for the continuance of the act for a period of 5 years.

This is the only act in the New Jersey Colonial Laws relating in any way to the practice of the healing art. The matter of a *charter* was mooted at an early meeting of the New Jersey Medical Society and the society made several attempts to secure one but was unable to come to terms with the legislature until 1775, when the proposed document was finally shaped to meet the requirements of both parties. The actual fruition of 7 years of patient struggle was, however, blasted for the time being, by the outbreak of the Revolution. After November 14, 1775, no meeting of the society was held for 6 years—till November 6, 1781. This hiatus was forced, partly by the centering of war activities in and about New Jersey, but more because, as stated in the report to the society on May 7, 1782, "most of the members of this Society took an early decided part in the opposition to British tyranny and oppression, and were soon engaged either in the civil or military duties of the State".

May 6, 1783, two years after reorganization, the society directs a committee to apply to the legislature for a Charter of Incorporation "to regulate and restrain the practice of physic and surgery in this State". This was obtained 7 years later at Perth Amboy, by an Act of the General Assembly, June 2, 1790. It had taken 6 years of effort to obtain the medical practice act from the Colonial Legislature; 8 to bring the same body to the point of agreement on the charter; and finally 7 years to actually obtain the charter from the State Assembly.

Thus we see Medicine from the humblest beginnings, gradually at first, then more rapidly, recruiting its ranks from the best brains of the colony, and finally safeguarding itself

by the enactment of a law which, for simplicity, brevity, and comprehensiveness, puts to shame our Medical Practice Act of today.

Chapter II.

HIS REVENUES AND CONTROL OF CONDUCT

Fees and Fee Schedules

In the consideration of any occupation—profession, art, trade, or other mode of employing man's waking hours—apart from the intrinsic value of the thing itself which he chooses to do, there arises secondarily the question of what rewards and discomforts accrue from this special line of conduct, and what limiting influences affect him—limitations, that is, imposed either by himself or by his fellow men. Discounting the more abstract elements in this phase of the discussion, such as personal interest or satisfaction, the esteem or disesteem of one's fellows, and considering the question very concretely, one's attention is directed first to the matter of fees and their adequacy to the service rendered, and second to the regulations and restraints imposed by society, in whole or in part, to protect itself, as well as those immediately concerned in the practice of the profession or art in question, from injustice, fraud, or poor workmanship.

The more primitive or frontier-like the civilization, the less there is of restraint imposed by one's fellows, and the more of real liberty of action. As the frontier metamorphoses into settlements, cities and states, with elective or other governing bodies, laws arise for the better control of human relations but make for a distinctly lessened degree of personal freedom.

So it was in the province of New Jersey in the seventeenth and early eighteenth centuries. Prior to 1766 there was no regular basis for fees, and in the early years of the colony the living to be derived from medicine was precarious as any other. Inspection of doctor's accounts, which have been preserved among family papers, reveal that it was common practice to charge only for the *administration* of medicines. This naturally developed a tendency on the part of the careless, or more or

less unscrupulous doctor, to dose the entire family when summoned to attend a single member.

The following account is taken from the Melick family records. (see Story of An Old Farm) having been presented to the then proprietor of the inn at Bedminster, and illustrates very well the basis of the doctor's income at that period:

Mr. John Melick

1787	To Wm. McKissack	Dr.	
Feb'y 26—Child	To Anthelmintic Powders	£0 1 6	
	" Vermifuge Decoction with		
	Senna	0 2 0	
April 17	" A Visit, 3 doses Pectoral		
	Drops	0 3 6	
	" Emetic & ½ oz. Liqueurice		
	Juice	0 1 6	
19	" 1 oz. Febrifuge Julip	0 1 0	
29—Self	" Rx. Mercurial Ointment &		
	Box	0 2 0	
	Family " 1 oz. Alternative Powder &		
	3½ ozs. Itch Ointment	0 7 3	
May 21—Daugr	" An Emetic	0 1 0	
Nov. 12—Mrs.	Melick " Cathartic Powder	0 1 6	
14—Do	" 1½ dr. Camphor	0 1 0	
1788			
May 11—Do	" 2 dr. Essential Oil & 2		
	Anodyne Pills	0 2 6	
		£1 4 9	

Surgical attendance was, perhaps, more particular. But there was great irregularity, discretion was wide, and apparently many complaints were made to the courts. Not until the organization meeting of the New Jersey Medical Society in July, 1766, was anything done to systematize charges; and this first gathering took up the matter and a schedule of fees was suggested. It was greeted, however, by such a howl of protest from the public, and from members of the profession who were not members of nor in sympathy with the society, regarding it probably as a high-brow clique, that final adoption was not ventured till 20 years later, by which time the society was stronger and had made a definite place for itself. The schedule nevertheless obtained as a tacit basis for fees until the meeting of May 2, 1786, when it was finally adopted. Wickes, in comparing this table of fees with the cost of food stuffs, salaries of public officials, etc., concludes "that the practice of medicine, though doubtless more la-

borious, was not as a rule less remunerative, relatively, than at the present time".

REGULATIONS AND RESTRAINTS

Up to formation of the New Jersey Medical Society in 1766, there was apparently no one in the colony interested in any way with the control of medical practitioners—unless protest of their bills to the courts may be so regarded. The formation of such a society gave opportunity for directly curbing only its own members; but as it gained prestige it must have made itself felt as a restraining influence throughout the colony.

Apart from the dropping of various members for nonattendance, only one disciplinary measure is recorded in the Transactions up to the time of the Revolution. A certain Bern. Budd, of the Morristown district, and one of the 14 original members of the society, is called upon at the meeting of November 7, 1769, to answer charges that he "has in sundry places misrepresented the designs of its (the society's) institution, whereby a number of the Faculty have been prejudiced against becoming members, and many persons against the Faculty in general". Not until the meeting of May 14, 1771, one and one-half years later, could the gentleman be induced to appear to defend himself; yet he did this so convincingly that "he exculpated himself to the satisfaction of the Board; and also gave sufficient reasons for his absence from several former meetings of the society". The records show that, besides the organization meeting, he had attended only 1 other prior to this; i. e., 3 in all, out of 11 meetings.

Now mark what follows. In the minutes of November 9, 1773, appears the notation that: "Doctor Bern Budd, a member of this society, having fallen into a most criminal deportment as a public delinquent and offender against the dignity and majesty of our most gracious King and Sovereign * * * the society unanimously agreed to expel from their Board the said Bern Budd, as a person really scandalous and altogether unworthy the notice of its members". The scandalous conduct is not retailed; but a Morris County record (Story of an Old Farm) reveals that in 1773 Doctor

Barnabas Budd was convicted with 3 others of distributing forged bills in Morris County. All 4 were condemned to hang, but "through influence Budd with 2 others exscaped the gallows. (Melick) Perhaps he reformed, for, in a list of New Jersey Surgeons Commissioned in the War of 1776, we find the name Barnardus Budd (Wickes). Let us hope it is the same man, and that he retrieved himself and expiated his fault.*

One significance of this incident is that the society could be a disciplinary body; and such a statement, couched in no uncertain terms, of frank disapproval by a group of gentlemen, must have given pause to many, and could not but add some measure of prestige to the young organization.

Chapter III.

HIS THERAPEUTICS AND PRACTICE

Diseases Encountered

Such being the type of men who professed medicine in colonial times, and such their genius for organization, it remains to inquire briefly as to their clinical experience and their more purely professional life.

From accounts and bills of the period, the physician seems to have been chiefly occupied on his rounds with administering cathartics, emetics, vermifuges and anodynes, and doing such minor surgery as occasions demanded. The doctor was a hard working individual and, certainly in the rural districts, spent long hours in the saddle. He carried with him not only his drugs, but undoubtedly dispensed as well much of the gossip of his section. Thus we can imagine him a doubly welcome visitor, and that family particularly fortunate to whom he came about meal time. A bottle of rum usually awaited him when finished with his ministrations to the sick, and, sped on his rounds in this fashion all day long, he might easily by night be in a fair state of inebriety. The tale is told of one practitioner, who, on a dark night, leaving a patient near Pluckamin, mounted his horse, and started for his home

in Bedminster. As he jogged on his way, he was annoyed by the sound of a gig coming along behind him, and several times turned aside to let the other pass, which that one was apparently unwilling to do, for each time he stopped, the gig also stopped. He finally arrived home, cursing violently all the way, only to have his profanity measurably augmented by the discovery of his own gig hitched on behind his horse.

Epidemic diseases were by no means uncommon even in those days of sparse population. Small-pox, yellow fever, and fever and ague (malaria perhaps), were prevalent among the Indians before arrival of the whites, and there were many observations on these ailments in both medical and secular letters of those times.

Epidemics of pleurisy, with high mortality, among the Swedish colonists, in 1728 and again in 1748, are described by Kalm, and are suggestive of the influenzal bronchopneumonia of a decade ago. Webster also speaks of an epidemic of Catarrh in 1647, which began with a cold and light fever, and caused many deaths. (Epidemic and Pestilential Diseases—1779.)

The flux, or dysentery, was prevalent from time to time. Rev. Jonathan Dickinson, who was a noted physician as well as a divine, described in 1740, with great minuteness, a peculiarly fatal epidemic of "throat distemper", delineating 6 forms or clinical varieties. Perhaps this was a malignant streptococcus infection. (Wickes, Appx. B.)

Kalm notes the early loss of teeth by colonists, and attributes it to tea drinking. He states that the condition was not known in America before the use of tea, and that the Indian women, who ordinarily had fine teeth, were similarly affected when they became addicted to this beverage.

Small-pox, as has been noted, was early a serious problem. In 1721, Cotton Mather was impressed by a London account of the success of inoculation of the small-pox virus in Turkey; this produced the disease in a comparatively mild form, and rendered the patient thereafter immune. He vigorously advocated its use in this country, and, on his

*A record uncovered since this was written reveals his death, of putrid fever, in December 1777—an illness contracted in line of duty. *Requiescat in pace.*

encouragement, Doctor Zabdiel Boylston, in Boston, inoculated his own son and 2 servants. Despite vigorous opposition on the part of the medical profession, led by Doctor Douglas, Boylston had soon inoculated 247 others. Benjamin Franklin, scientist though he was, opposed and wrote against it in Philadelphia; but later, and after the death of his own son from small-pox, he became a strong advocate for the procedure.

By 1764 prejudices had largely vanished, and the first public hospital for the inoculation of small-pox was opened in Boston by Doctor William Barnet, of Elizabethtown, N. J. Rush mentions his (Barnet's) having been invited to Philadelphia in 1759 on a similar errand. Doctor Barnet was evidently a man of progressive intellect and considerable reputation. He is credited by Clark ("Medical Men of Essex County") with having introduced vaccination into Elizabethtown; but this statement is obviously incorrect as Jenner's discovery was not announced till 1796. The preparatory care of persons to be inoculated with small-pox virus was well worked out and deaths were comparatively few. (Wickes, Appx. A.)

Obstetrics

Midwifery was a task regarded as unbecoming a gentleman, and medical men rarely gave any attention thereto, except in extreme cases. Women acted as accoucheurs until the middle of the eighteenth century. The first record of systematic instruction is a series of lectures to midwives at the University of Edinburgh in 1726. Thirty years later, at the same institution, a class of medical students received lectures and demonstrations.

Doctor William Shippen studied in Edinburgh where he gave much attention to obstetrics, and delivered his first course of lectures in Philadelphia in 1762. About the same time Doctor John V. B. Tennent, of Freehold, N. J., and a graduate of Princeton in 1758, began to give instruction in New York, having, like Shippen, taken his medical course at Edinburgh. He held the first chair of obstetrics in the Medical School of New York until his death in 1770. These two men did

much to dignify obstetrics, and stimulate interest in the lying-in patient, and must be credited with both courage and foresight, as well as love for their profession.

Chapter IV.

HIS PROFESSIONAL PROGRESS

The middle of this eighteenth century was a period of general growth and stimulation of medical research. We have already noted Jonathan Dickinson's contribution to the subject of "throat distemper", William Barnet's work on small-pox inoculation, and the great advance in the obstetric field by Tennent and Shippen. Thomas Thatcher, a clergyman, is credited with the first recorded contribution to medical literature in America, by a paper, in 1677, entitled "Brief Rule to Guide the Common People of New England How to Order Themselves and Theirs in the Small Pocks or Measles".

Courses of lectures by individual physicians were initiated apparently by Doctor William Hunter, at Newport; R. I., 1754-5-6, on Anatomy. Doctor Thomas Cadwalader, who divided his time between Trenton and Philadelphia, though a native of the latter city was, in 1746, Chief Burgess of the former, and published from Trenton, in 1745, a paper entitled: "An Essay on the West India Dry Gripes; With the Method of Preventing and Curing that Cruel Distemper. To which is added an extraordinary case in Physick". In 1754 he began a course of lectures on Anatomy, in Philadelphia.

Thomas Wood, in 1752, advertised at Brunswick "a course on Osteology and Myology" of about a month's duration, to be followed if encouragement was given by a "course in Angiology and Neurology".

A regular school of medicine was established in Philadelphia about 1762 and issued certificates to those who attended. Shippen lectured there on Anatomy for 3 years, and in 1765 became Professor of Anatomy and Surgery in the College of Philadelphia. In New York a medical school in connection with Kings College was founded in 1767, with chairs of Anatomy, Pathology and Physiology, Surgery, Chemistry and Materia Medica,

Theory and Practice, and Midwifery. Between 1769 and '74 degrees were given to 11. There was no school in New Jersey until after the Revolution, when Queen's College undertook medical instruction in 1792.

Medical progress in New Jersey was greatly stimulated, about the middle of the eighteenth century, by contact with the well educated English army surgeons, alongside of whom many colonial doctors served during the French and English War of 1758-66; and it may well have been that from this source came much of the impetus for the founding of a medical society in the colony. The contrast between themselves and the British surgeons must have accentuated their impression of what the preamble to the Transactions describes as "the low state of Medicine in New Jersey".

At any rate the following advertisement appeared in the New York Mercury in June, 1766: "A considerable number of the Practitioners of Physick and Surgery, in East New Jersey, having agreed to form a society for their mutual improvement, the advancement of the profession and promotion of the public good, and desirous of extending as much as possible the usefulness of their schemes, and of cultivating the utmost harmony and friendship with their brethren, hereby request and invite every gentleman of the profession in the province, that may approve of their design, to attend their first meeting, which will be held at Mr. Duff's, in the city of New Brunswick, on Wednesday, the twenty-third of July, at which time and place the Constitution and Regulations of the society are to be settled and subscribed. East New Jersey, June 27th, 1766."

The meeting thus called was duly held at New Brunswick on the date prescribed, and attended by 14 gentlemen of the profession. As their first task they drew up the "Instruments of the Association and Constitutions of the New Jersey Medical Society", which were signed by all present. They proceeded then to organization, and chose the Rev. Mr. McKean, President; Doctor Chris. Manlove, Secretary; and Doctor John Cochran, Treasurer. They next took up "the mode of charg-

ing for medical and surgical services", and a committee appointed therefor submitted at a session later in the day the "Table of Fees and Rates" to which brief allusion has already been made.

The next business was the creation, in accordance with the seventh article of the Constitution, of 4 "Inferior Medical Societies", to be denominated the Elizabethtown, Bound Brook, Princetown, and Morristown Inferior Medical Societies. These were to meet at more frequent intervals than the parent body, and their time of first meeting was duly appointed for the respective successive Wednesdays of the next September.

The question of credit then came up and the following was adopted:

Resolved, That long credit is both an injury to the practitioner and the people.

Resolved, Therefore, that credit above a year is a discouragement to the profession.

Resolved, That each member of this society will not credit any person (those families where they are constantly employed excepted) above three months, after his or her recovery;

That all strangers ought to pay ready money for any medical services.

Resolved, That cures of all foul diseases should be paid for immediately." (Transactions, p. 14).

The next meeting was appointed for Tuesday, the fourth of November, in Elizabethtown, to which time and place the society was adjourned by the president.

* * * *

Overmuch time has been already spent to go into further detail about the organization and its early years of struggle for existence. Its most notable achievement, namely the passage of a medical practice act in 1772, has already been commented upon: most notable, that is, if one excepts the act of the society's foundation.

That the creation of this society marked a new epoch in the history of medicine in New Jersey, and indeed in America—for it is the pioneer organization of its kind—is patent. The story of medicine in New Jersey has now been carried through the Dark Ages of the

Colonial period, and it remains for other times to discuss its medieval and modern history.

Suffice it to say that these early years were a time of struggle against prejudice, empiricism, and quackery; against public ignorance and professional incompetence; and no honor that we can pay these far-seeing, and courageous founders of the Medical Society of New Jersey can do sufficient justice to their achievement in human progress.

Such are some of the facts which may be gleaned from a study of the documentary evidence. They paint a fair picture of the times, which might be reasonably touched here and there with an imaginative brush. Such men as Shippen, Tennent, Cadwalader, Barnet, were probably the equals intellectually of any medical men alive today. Harvard, Yale, Princeton, and Kings colleges had been founded and were yearly sending out their graduates, some of whom were taking up medicine. Thus the average mental caliber of the practitioner of 1750 must have been as high as that of 1929. Unfortunately, political and professional rivalries were stumbling blocks then as now; protective and forward looking legislation was difficult of achievement; mountebanks and quacks of all types flourished; the profession, in its opposition to inoculation for small-pox, revealed in itself the age old spirit of conservatism and obstruction that we know so well; the public protested fees, and cast the eye of suspicion on their benefactors, as they do today.

The chief difference between then and now, lies in the accumulation of knowledge during the 200 years that have passed. The process of reasoning is the same today as in the day of Aristotle; major premises vary with the times and the individual, and therefore conclusions differ; but the intellectual process and machinery remain the same. One is led to the conviction that humanity, in its struggle for existence, its yearning for betterment, meets with no more immutable obstacle than humanity itself.

BIBLIOGRAPHY

1. History of New Jersey. Smith, 1870.
2. History of Medicine and Medical Men in New Jersey. Stephen Wickes, 1879.

3. Historical Sketch of the State of American Medicine before the Revolution. John B. Beck, 1842.
4. British Settlements in North America. Dr. William Douglas, 1750.
5. Transactions of the Medical Society of New Jersey, Vol. I.
6. Colonial Laws of New Jersey, Vol. I. (State Library).
7. Story of an Old Farm. Melick, 1889.
8. Travels in North America. Kalm, 1748.
9. Epidemic and Pestilential Diseases. Noah Webster, 1799.
10. On the Throat Distemper. Jonathan Dickinson, 1744.
11. Inquiries. Benjamin Rush, 1805.
12. Retrospect. Miller, 1808.
13. Medical Progress. Toner, 1874.

PRELIMINARY REPORT ON CLINICAL INVESTIGATION IN GENITO-URINARY INFECTIONS OF SERENIUM 103 HYDRO-CHLORIDE*

An Ethyl Ether of Hydroxy-diamino- aso-benzol.

M. W. OPENCHOWSKI, M.D.,
Newark, N. J.

I have recently had an opportunity of trying out a new genito-urinary antiseptic whose characteristics and results show great promise. The product is claimed to have a high bacteriostatic power combined with an exceedingly low toxicity and a selective chemical affinity for the tissue of the genito-urinary tract.

In view of the above-stated properties of "serenium", clinical investigations have been undertaken to find the applicability of this compound in different infectious genito-urinary processes. Being excreted very rapidly by way of the kidneys, serenium should render the mucous membranes along the route of its outflow resistant to the growth of bacteria, through its bacteriostatic action. The claim that the compound has also definite affinity for the genito-urinary organs other than those directly in the line of urine elimination seemed to be substantiated by the large number of gynecologic cases investigated.

Five different classes of patients were selected for treatment: acute and chronic gon-

*This product was supplied by E. R. Squibb & Sons and is marketed under the name of Squibb's Serenium.

orrhoea, acute and chronic salpingitis, cystitis, pyelitis and chancroid (ulcus molle; B. Ducrey).

In acute gonorrhoea, "serenium 103" tablets of 0.1 gm. were given at intervals of 4 hours. The characteristic color of the voided urine was noticeable in from 1 to 3 hours following administration of the compound. Frequency of urination and a burning sensation in several cases showed marked decrease in 48 hours. Most of the cases showed slower but definite improvement, the average time being 10 to 14 days. Pain and pressure in the region of the bladder and genitalia subsided within the same period. A few cases, evidently caused by a very virulent strain, were resistant to treatment. Discharge from the urethra usually increased for 2 or 3 days, becoming, however, more watery with a yellowish tint acquired during the contact with serenium. Patients were seen every other day. Smears taken during treatment showed that the number of Neisser diplococci was gradually decreasing. Discharges also decreased following the temporary increase and only small morning drop appeared in from 11 to 18 days from the beginning of treatment. Patients were able to continue their occupations, their diet consisting of milk, vegetables, cereals and in general of foods which are not irritating to the genito-urinary tract. The administration of serenium was continued for 6 to 8 weeks, so as to prevent multiplication of gonococci left in the prostate, and to avoid re-infection. Marked improvement was observed in the general condition of the patients treated by this method. Their appetite increased, they felt better and gained in weight.

In cases of chronic gonorrhoea the same plan of treatment was followed. The dosage was somewhat increased during the first week and the period of administration was extended over 2 to 3 months.

Where possible, the conservative treatment of acute salpingitis and oöphoritis is to be preferred to the older and more radical surgical methods, not only because it often conserves important organs and restores their function in women but because it reduces mortality. During the acute stages of the average pelvic

infection operative procedures are not as a rule advisable, as extensive removal of the tissues is necessary to eradicate actively virulent organisms.

In cases of acute salpingitis, "serenium 103" tablets of 0.1 gm. were given 3 to 4 times daily. In unilateral infections this method prevented spreading of the process to the appendages on the other side. In these cases the temperature came down by lysis. As a rule, during administration of serenium in cases of unilateral infection of the tubes and ovaries, patients felt increased discomfort on the affected side manifesting itself in a feeling of pressure and dull pain. This discomfort, however, does not last for more than 2-5 days. This phenomenon seems to show clearly the specific local action of the compound.

In cases of chronic salpingitis accompanied usually by endometritis, the phenomenon of increased pain is also present, more so on the side where the infection is severer. In addition to oral administration of the serenium tablets, it was found to be beneficial, and shortened the period of convalescence, when hot douches of $\frac{1}{2}$ to 1% solution of serenium were administered twice daily. In cases of cervical infection, vaginal tampons of 10% serenium ointment were left for 2 days; this procedure was repeated 4 to 6 times, when necessary.

Out of more than 100 cases of genito-urinary infections, only 3 became serenium-fast; i. e., after a period of about 2 weeks they would not respond to further treatment. It was then decided to interrupt the treatment for 10 days and begin to administer serenium in larger doses at the close of this period, reducing to the original dosage after 3 days. The most gratifying results were observed in long-standing infections where all other treatments had failed.

The causative organism in the majority of cystitis cases is *B. coli communis*, a micro-organism which resists many of the therapeutic agents. In 18 cases of this type infection of the urinary bladder serenium was given 4 times daily in doses of 0.1 gm. The intake of fluid by the patient was restricted

in order to increase the strength of the serenum in the urine collecting in the bladder, but I am not at all certain that this procedure is advisable. The treatment was continued for 2 weeks and after an interruption of 1 week, renewed for 2 more weeks. In several cases instead of interrupting the treatment the dosage was reduced. It is advisable to continue the treatment after disappearance of the symptoms in order to prevent the possibility of re-infection from the tissues adjacent to the urinary bladder.

In 7 cases of pyelitis with a typical symptom complex—high fever, chills, pain in the lower region of the spine, presence of pus in the catheterized urine—the effect of serenum was outstanding, improvement being noted usually in 24 hours following administration. The fever dropped for 0.5° to 2° , chills subsided, pain decreased and a marked improvement of the general condition was noted. In 3 days temperature was 98.6° to 99.4° and no rise of fever was observed during the next week. Patients continued on serenum for 2 more weeks. Catheterized specimens of urine were free from pus.

In 12 cases of chancroid (B. Ducrey), serenum paste was applied after a thorough cleansing of the lesion. Dressings were changed every day. In from 3 to 5 days healthy granulations were observed, cultures taken did not show the presence of B. Ducrey, and no complication followed in any of the cases treated.

In 4 cases of mixed infection where gonorrheal infection was also present, the application of serenum paste was supplemented with oral administration of serenum 103 tablets.

SUMMARY AND CONCLUSIONS

The use of serenum as a chemotherapeutic agent in the treatment of genito-urinary infections was suggested by its low toxicity and high bacteriostatic power. When taken by mouth it is eliminated in the urine in relatively high concentration. The chemical has been used in the treatment of 120 cases of genito-urinary infections. It was fully demonstrated that the drug was innocuous in the dosage

used. Although a small proportion of cases were refractory, the drug when taken by mouth has in general a definitely favorable effect upon the course of gonorrhea, salpingitis, cystitis and pyelitis. The best results were obtained in long-standing infections that had failed to respond to other methods of treatment. Serenum was also used with benefit as a douche in salpingitis and as a local dressing for chancroid.

LABORATORY CONTROL OF CERTIFIED MILK ON THE FARM*

JOHN G. HARDENBERGH, V.M.D.,

Director of Laboratories, The Walker-Gordon
Laboratory Company, Inc.,

Plainsboro, N. J.

The effective control of certified milk today merits a precision of method and a completeness of detail which reflects the advances that have been made in dairy science in the past few years. The trend of quality in the various grades of market milk has been strongly upward so that our present standards for cleanliness, purity and safety are on a much higher level than formerly.

The sponsors and producers of certified milk have taken recognition of and kept step with modern requirements as shown by the activities of the Methods and Standards Committees of the American Association of Medical Milk Commissions and the Certified Milk Producers' Association of America, and as pointed out by the previous speaker.

The writer has endeavored to show in a previous paper⁽⁵⁾ that the major requirements for producing milk of the highest quality involve dairy units of economic size coupled with well-developed *production management* and *technical control*. It is the purpose of this paper to present more particularly the details of this technical control as they apply to laboratory procedures. The system to be described is not speculative but has been

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developed, found to be feasible, and is in routine operation on several large certified milk farms. The technical control of this milk is based upon a plan of daily veterinary, daily medical and daily laboratory examinations. While each of these forces functions as a unit, yet they are interdependent and coöperative. Thus the veterinary division looks to the control laboratory for information concerning the fitness of individual cows for production, and the laboratory also acts as a supplement to the medical side in checking the possibilities of contamination by human carriers.

The system of laboratory control starts with dairy cows healthy in all respects as determined by: (1) physical examination prior to and following purchase; (2) tuberculin test prior to purchase and by subsequent retests; (3) agglutination tests for *B. abortus* infection prior to purchase and subsequent retests. From this point on, the veterinary supervision of the cows and the laboratory control of the milk they produce dovetail, and are carried on according to the following routine:

- (1) Examination of the milk from individual cows prior to admission to production.
- (2) Examination of the milk from all cows (prior to re-admission to production) after they have been removed from the milking line for any reason (so-called hospital cows).
- (3) Examination of the milk from all cows detected by the fore-milker.
- (4) Examination of the milk of the entire producing herd by means of group samples taken at weekly intervals.
- (5) Daily tests of the bottled product.
- (6) Weekly equipment and efficiency tests to check the various dairy operations.
- (7) By repeated tests for *B. abortus* infection and removal of reactors.

EXAMINATION OF FRESH AND NEW COWS

On the seventh day following parturition, fresh cows are examined by the veterinarian to determine fitness for milk production. The control laboratory is notified of all cows that are passed, and collects a composite sample of

milk from the 4 quarters of each cow listed. These samples are then subjected to culture in blood agar plates and to a microscopic examination for the determination of leukocyte count.

The use of the blood-agar plate in certified milk control has been fully described by its originators, Brown, Frost and Shaw⁽²⁾, and its application to this type of work reported by Parker⁽⁸⁾, by Frost⁽³⁾ and his associates⁽⁴⁾, and others. It represents an indispensable adjunct to the control laboratory, permitting differentiation of the various types of organisms encountered in milk, more particularly the hemolytic streptococci.

Individual milk samples are plated in a dilution of 1:100, incubated for 18-20 hours and then examined. The total numbers of bacteria per cubic centimeter are then noted, together with the percentages of types of streptococci present (non-hemolytic, hemolytic alpha, hemolytic beta, and green producing).

Any cows exhibiting counts in excess of 10,000 per cubic centimeter are withheld from production, reexamined, and not admitted until the count drops to below the prescribed level, (more than 95% of cows freshen with a count of 200-300 up to 2000-3000 per cubic centimeter. In addition, any cows are withheld that show the presence in their milk of streptococci of the beta type, not definitely recognized as of bovine origin. These types are then fished from the plates and examined according to the routine technic described by Brown, Frost and Shaw⁽²⁾ for the identification of *Streptococcus epidemicus*. This same general technic with certain modifications is of value to detect other strains of human hemolytic streptococci that may be associated with scarlet fever, erysipelas, etc. As soon as the identification is completed, the cow concerned is either released for production when it is known that the type is non-pathogenic, or is disposed of if the type is considered harmful. We have found that cows actually harboring *Streptococcus epidemicus* or related types of *S. pyogenes* are encountered only with exceeding rarity. It is a common occurrence to withhold temporarily

from production a cow with suspicious types of beta streptococci; but these usually prove to be *S. mastitidis* or less frequent strains.

Leukocyte counts are made by the direct microscopic smear method of Breed and stained according to the combined fat extraction, fixing and staining technic of Newman⁽⁷⁾, which has been found very satisfactory. The numbers of leukocytes are reported in thousands per cubic centimeter and the predominant types noted. Fresh cows with clumped leukocytes or with excessive numbers of leukocytes are withheld from production even though the bacteria count and type may be satisfactory. However, in dealing with fresh cows, it must be remembered that a certain leukocytosis in the milk is physiologic, not pathologic, and that the milk may be normal even with a relatively high white cell count. In interpreting a high leukocyte count, the veterinarian and the laboratory base opinions upon the careful inspection of the milk from such cases. For a valuable reference concerning the sanitary significance of these leukocytes, the reader is referred to the bulletin by Breed⁽¹⁾.

Results of laboratory examinations of fresh cows are reported to the Veterinary Division upon blank forms as are also all other individual milk examinations. The Veterinary Division then admits to production the cows that have passed physical and laboratory examinations and withholds the others for subsequent tests.

This same routine applies to any new cows that are fresh when purchased.

EXAMINATION OF HOSPITAL COWS

Cows may be removed temporarily from the milking line for a variety of reasons. Some are so-called flaky-milk cows, others develop frank mastitis, go "off-feed" for a variety of reasons, or are found to be high-counters, and so on.

Every cow that is removed from the milking line for whatever reason, must undergo the same routine as fresh and new cows. They must be reexamined by the veterinarian when ready for discharge from the hospital and their milk must be passed by the laboratory

as normal. Animals ready for re-admission to the herd are listed on the form shown on Fig. 1 under "Hospital Cows" and the results of laboratory examinations are reported back to the Veterinary Division along with other cows.

EXAMINATION OF COWS DETECTED BY FOREMILKING OPERATION

The practice of examining the foremilk from each quarter of every cow in certified milk production prior to each milking is well known. As a routine procedure to check the normality of each cow's milk, I believe that it has no superior when done carefully. Most abnormalities in the udder are soon reflected in the milk and a well-trained operator equipped with a proper stripping-cup performs an exceedingly important function. In our system, in addition to discarding the milk from flaky-milk cows or from those showing other abnormalities of secretion, the ear-tag number of each such cow is noted by the foremilkster and reported to the laboratory. Individual milk samples are obtained from all the cows so reported during the previous 24 hours. These samples are then subjected to blood-agar plate culture and leukocyte count as previously described.

In passing, it might be well to state that any cow showing abnormal or flaky milk on 2 successive milkings, is removed at once from production, goes under hospital routine, and does not return to the milking line until passed by the veterinarian and the laboratory.

Jones⁽⁸⁾ has made an excellent study of the bacteriology and significance of flakes in milk.

WEEKLY EXAMINATION OF MILKING HERD BY GROUPS

Once that dairy cows have been passed for production, it is essential that they be subject to frequent reexaminations, both physical and laboratory, in order to note their continued fitness. Under this system, the physical condition is checked by monthly examinations which are supplemented by full time veterinary supervision. At the present time the personnel required for adequate supervision of a herd which totals over 1800 dairy cows,

about 1300 being in production, comprises 3 veterinarians and several trained lay assistants. In addition, and as pointed out previously, the fore-milk examination constitutes an important routine check on the condition of each cow's milk secretion from day to day.

We have found it desirable to augment this supervision by a weekly bacteriologic examination of the entire producing herd. This is accomplished by means of group samples which are subjected to the same blood-agar examination as the individual samples. In case any group sample shows an excessive number of bacteria or the presence of suspicious beta types, the group of cows contributing to the sample are checked individually to locate the cow responsible.

This routine is especially valuable for the detection of so-called "high-counters" because often times the milk of such animals shows no physical sign of abnormality that can be detected. By this means also, any cows that may be harboring beta-type streptococci in significant numbers can be located and the strain definitely checked for identification.

During the past 4 years, the certified milks produced in Wisconsin under the jurisdiction of the Chicago Medical Milk Commission have been regularly examined once a month for the presence of hemolytic streptococci. This work has been done at the University of Wisconsin under the personal supervision of Dr. Frost. The frequency, the numbers and the kinds of strongly hemolytic streptococci that have been encountered in this control work have been made the subject of a valuable and interesting report⁽⁴⁾. It is shown that of 3353 samples analyzed, only 9, or 0.27% proved to contain streptococci of the human type; 6 were identified as *S. epidemicus* and 3 as *S. pyogenes*. While a considerable number of beta-type colonies were encountered, they were, with the exceptions noted, of bovine origin and identified principally as *S. mastitidis*, *S. infrequens*, and so on.

DAILY TESTS OF THE BOTTLED PRODUCT

Each day from 4 to 8 samples of the bottled product are collected and examined according to Standard Methods for bacteria plate count

on nutrient agar. This examination furnishes information on the product as it goes to the consumer.

WEEKLY EQUIPMENT AND EFFICIENCY TESTS

Each week at the same time that group samples are collected for checking the producing herd, samples of milk are checked at intervals from the time it leaves the cow, as it passes through the various phases of cooling and bottling in the dairy house, up to the time that it is filled into the final containers. These tests act as checks on the dairy operations.

Examinations are also made 2 or 3 times each week to check the condition of dairy utensils and bottles with respect to bacteria content. The water supply is tested weekly according to Standard Methods for the colonaerogenes group.

TESTS FOR B. ABORTUS INFECTION

The control laboratory acts as an aid to the Veterinary Division in controlling the elimination of cows infected with *B. abortus*.

All replacement cows are purchased subject to the agglutination test, negative animals only being accepted. New cows are retested upon arrival and again after freshening in order to detect the small number of cows that will not react to the test while in calf though infected. Retests of the entire herd are made at 2 to 3 month intervals and reactors are disposed of. In the control work on abortion infection, the laboratory is checked twice yearly by the official laboratory of the New Jersey Bureau of Animal Industry.

The statement has been made in discussing the efficiency of the agglutination test that many cows eliminate the organism in the milk and still fail to react. This is a damaging criticism of the test which is not supported by the facts. It is conceded that rarely a cow may shed *B. abortus* organisms in the milk and perhaps show no reaction to the blood test for a period, but that this condition persists for a long time or that it is a common occurrence, is contrary to scientific data and to the bulk of expert opinion.

DISCUSSION

In presenting the details of the control system described, I wish to emphasize that one of the most essential features of the plan is its routine character. To be effective, the operation must be a regular procedure. Rather than a burdensome method, it has proved in practice to be a valuable contribution to the organized supervision. Followed systematically, it is simple in operation. The great advantage in being in immediate contact with all phases of production from the cow to the bottle is readily apparent. In the exact detail presented, it is restricted to the larger dairy units where scientific methods of production can be made an economic success. The Wisconsin system, however, is a striking illustration of a similar plan applied to a number of smaller dairy units under a centralized control so as to operate with efficiency.

The natural reaction to this discussion may be to question what we hope to accomplish by the system described. In short, is it not possible to attain the same goal of purity, cleanliness and safety by the substitution of other processes that are relatively more simple and cheap? To accept this viewpoint is to overlook what we consider as the fundamental principles for producing the highest quality milk. We are convinced of the place and necessity for a milk sound in every respect, beginning with the dairy calf and dairy cow and utilizing all the scientific knowledge available to get a milk that contains every desirable element that can be incorporated by natural means. This product should then be surrounded by all the safeguards that may be applied through a system of technical control involving medical, veterinary and laboratory supervision. These principles we believe are basal and offer opportunity for great development in the dairy industry of the future.

BIBLIOGRAPHY

1. Breed, Robert S.: The sanitary significance of leukocytes in milk. Bulletin No. 568, N. Y. State Agr. Exp. Station, April, 1929.
2. Brown, J. H., Frost, W. D., and Shaw, Myrtle: Hemolytic streptococci of the beta type in Certified Milk. Jour. Infect. Dis., 1926, 38:381.
3. Frost, W. D.: Kinds and significance of hemolytic streptococci in milk. Proceedings, American Assoc. of Med. Milk. Comm., 1927, pp. 94-105.

4. Frost, W. D., et al: Some bacteriologic problems of milk control. Ibid., 1928, pp. 112-124.
5. Hardenbergh, J. G.: Clean milk and the responsibility for its control. Med. Searchlight, 1929, 18:1.
6. Jones, F. S.: A study of "flaky" milk. Jour. Dairy Science, 1927, 10:439.
7. Newman, R. W.: Combined fat extraction, fixing and staining solutions for use in the direct microscopic technic for counting bacteria in milk. Proc. Soc. Exper. Biol. & Med., 1927, 24:323.
8. Parker, M. E.: The use of the blood-agar plate in a large certified milk dairy. Jour. Bact., 1927, 13:61.

PRODUCTION OF SENSITIVITY TO HORSE SERUM BY DIPHTHERIA TOXIN-ANTITOXIN; A REVIEW

JOHN MCK. MITCHELL, M.D.,
Bryn Mawr, Pa.

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If by the administration of diphtheria toxin-antitoxin prepared with horse antitoxin, we thereby sensitize any considerable proportion of patients in such a manner that reactions occur when therapeutic serum prepared from the same animal is subsequently given; then every practicing physician should be aware of this fact. Particularly is this true since it is possible to immunize to diphtheria by the use of preparations which do not contain horse serum.

The belief is prevalent among many physicians who use toxin-antitoxin extensively that sensitization to horse serum does occur. In support of their belief, they are, however, usually able to cite only a personal experience with some individual case, or a case report from the literature, either of which may well represent an authentic example of sensitization by toxin-antitoxin but it does not give any picture of how frequently such sensitization occurs. Work bearing on this question has appeared, but usually in journals not widely read by practicing physicians, and one purpose of this paper is to summarize the data published to date.

The wide-spread use of toxin-antitoxin is too well known to necessitate elaboration. The greatest part of the toxin-antitoxin so used is

now prepared by using antitoxin from the horse to neutralize the diphtheria toxin. The use of therapeutic serums, all prepared through the medium of the horse, has likewise increased rapidly, until today such serums are universally used in the prevention and treatment of diphtheria and tetanus and in the treatment of meningococcus meningitis, scarlet fever, erysipelas and pneumonia, and sometimes for rheumatism and streptococcus septicemias.

During the period covered by the increased use of toxin-antitoxin and therapeutic serums, the incidence of serum disease has also increased. Weaver, in 1909, reported that serum sickness had followed the use of diphtheria antitoxin in 31.1% of 692 cases. After the use of concentrated serum was introduced, the same writer, in 1917, reported serum disease in only 8.4% of cases treated. A 1927 report showed, however, that 28.2% of 1199 patients who received diphtheria antitoxin subsequently developed serum disease.

When scarlet fever antitoxin first came into use, the frequency and severity of reactions to it were widely noted. These were attributed to the rawness of the serum, but after properly aged products appeared and the serum was refined, such reactions failed to decrease to the expected degree. It is evident that some factor is operating to cause an increase in the incidence of serum disease, and that refinement of serum alone will not solve the problem.

It is well known that one dose of therapeutic serum will frequently sensitize to a second dose. If in addition toxin-antitoxin is capable of sensitizing, we have in the more frequent use of therapeutic serums, and in the wide use of toxin-antitoxin, the probable explanation of this recent increase in serum disease.

That the small amount of horse serum present in 0.1 L plus toxin-antitoxin (approximately 0.000038 mil per c.c.) is capable of sensitizing seems at first glance hard to believe. Wells, however, was able to sensitize guinea-pigs to egg albumin with a dose of 0.000,000,05 gm., and Cowie has observed hypersensitivity in a child, as recognized by the

intradermal test, after the injection of 0.1 c.c. of horse serum; without the provocative influence of successive injections such as are given in immunizing to diphtheria. The reaction so obtained was equally as pronounced as after injections of larger amounts. In addition, it has been shown by Otto that a mixture of toxin and antitoxin is more efficacious as a sensitizing agent than horse serum alone.

On the contrary, Wilmer gave 0.2 c.c. of toxin-antitoxin intradermally to 2 patients who were known to be susceptible to horse protein, and obtained no skin reaction. He also gave a course of toxin-antitoxin to 15 patients who were sensitive to horse protein, and no reactions resulted; these findings refer of course to immediate reactions and not to sensitization.

Crooks has reported 1 case, Stewart 7, and Lathrop 1, in which they believed sensitivity to have been induced by toxin-antitoxin. Gatewood and Baldrige have, in addition, reported 5 cases showing Arthus' phenomenon after toxin-antitoxin. In the light of our present knowledge it seems highly probable that all the cases so reported represent bona-fide examples of sensitization by toxin-antitoxin. Nevertheless, it must be admitted that none of these cases will stand a critical analysis because in none is it actually shown by test that the individual did not possess a natural sensitivity to horse serum prior to the toxin-antitoxin injections. When it is realized that approximately 15% of all people have a natural sensitivity to horse serum, (tables I, II and III) the importance of this factor becomes evident.

Hooker has approached the problem in the following manner. At the time of a preliminary Schick test he determined the sensitivity of the patient to horse serum by intradermal injection. Toxin-antitoxin was then administered to all the Schick positives, and 6 months later they were retested for sensitivity to horse serum. Of 367 originally tested for sensitivity to horse serum, 304 (table I) who had never before received horse serum in any form, gave a negative skin reaction. Of these, 96 received 5 doses of 1 c.c. each of 3 L plus toxin-antitoxin and on retesting

with intradermal horse serum 26 showed a definitely positive reaction, 36 a questionably positive (delayed reaction), and 34 were still negative. Therefore, of all toxin-antitoxin injected individuals who gave a negative reaction to horse serum at a preliminary test, 27.1% gave a definitely positive reaction 6 months later. Of 36 persons with a natural sensitivity to horse serum, 15 who gave only a delayed reaction received toxin-antitoxin and 6 of this number gave an immediate, definite positive on second test. Thus, natural susceptibles may have their sensitivity increased by toxin-antitoxin.

Hooker's work demonstrated clearly that toxin-antitoxin will produce a positive skin reaction to horse serum in a considerable proportion of individuals previously negative and who have received no other form of serum. Several legitimate criticisms may nevertheless be levelled at his findings; largely because of subsequent changes in the preparation and administration of toxin-antitoxin. Hooker used 3 L plus toxin-antitoxin and gave 5 injections of 1 c.c. each. Today a 0.1 L plus toxin-antitoxin is used and 3 injections of 1 c.c. each are given. This represents only about 1/30 of the amount of horse serum globulin used in Hooker's series. In addition to this he injected 0.005 c.c. of whole serum in his primary test and retsted with whole horse serum. While it seems unlikely that this primary intradermal injection added much to the sensitivity induced, or that many were rendered susceptible by it to albumin or euglobulin when they were not made sensitive to the pseudo-globulin in the toxin-antitoxin, a factor of error is none the less introduced. Park, in a paper called forth by that of Hooker, confirmed the latter's results in such way as to answer the above criticisms but at the same time he argued that the sensitivity so induced was a nearly negligible factor. In his series, Park used 0.1 L plus antitoxin in 3 doses of 1 c.c. each. Instead of giving a preliminary skin test he divided his series into 2 groups, those who had received toxin-antitoxin and those who had not. In part of each group he used globulin only in his skin test and in the other part whole horse serum. The difference

in the reactions to these reagents was slight. He found that 27.5% of 116 children developed a wheal and areola on skin test after toxin-antitoxin, while 11% of 90 children who had received no toxin-antitoxin developed a similar reaction. Of 30 adults, 33% showed wheal and areola after toxin-antitoxin, while only 19% of 187 had a natural sensitivity (table II).

The work of both Park and Hooker might be criticized on the ground that the skin test is not an absolute index of reaction capacity of the patient to horse serum. Longcope and Rachmann showed that following serum therapy a positive skin reaction made its appearance regardless of whether serum disease developed. It does not necessarily follow that an individual who reacts positively to a skin test will have a generalized reaction when serum is administered. Recent work on the passive transfer of skin reactions indicates the possibility of differentiating those whose skin alone is hypersensitive from those in whom the vital organs are sensitive. Spicer reported that of 164 patients who previously received no form of horse serum, 13% developed a generalized serum reaction after scarlet fever antitoxin; while of 28 patients who had received toxin-antitoxin prior to being treated for scarlet fever, 14% had serum reactions. In view of the slight difference in these figures she deos not feel that toxin-antitoxin sensitizes to horse serum. In conclusion, she states that to assume that toxin-antitoxin does induce hypersensitivity one must first prove that a greater percentage of those having had toxin-antitoxin develop serum reactions after a later dose of serum than of those not having had toxin-antitoxin. Gordon and Creswell have presented data that meets this demand in full. They compared the frequency and severity of serum disease after therapeutic serum in patients who had previously received toxin-antitoxin, with that of those who had received no toxin-antitoxin, and found (table III) that 74% of 556 persons who had received toxin-antitoxin developed serum disease as against 18% of 1750 persons who had not been so sensitized. Intermediately between these 2 groups were 43% of 151 pa-

tients who had previously received therapeutic serum of one sort or another. This indicates that, contrary to general belief, toxin-antitoxin is an even more potent method of sensitization than is therapeutic serum itself.

Gordon and Creswell also present statistics to show that serum disease in those cases which had received toxin-antitoxin, is not only more frequent but more severe. In serum disease following scarlet fever the average temperature was higher, duration was longer and lymphadenopathy, arthralgia, edema, local swelling and tenderness, were all present in an appreciably greater percentage of patients who had received toxin-antitoxin than in those who had not. The group which had previously received therapeutic serum again lay between the other groups.

Serum disease following scarlet fever antitoxin is more frequent and more severe than that following diphtheria and erysipelas antitoxins. A possible explanation of this lies in the greater percentage of scarlet fever patients who have previously received toxin-antitoxin. Among 701 patients in Gordon and Creswell's series (table IV) who received scarlet fever antitoxin, 37.6% had previously received toxin-antitoxin while 18% of 1556 diphtheria patients and only 4.5% of 200 erysipelas patients had received it. Serum disease among these 3 groups occurred in 43.6%, 30.2% and 7.5% respectively.

That 18% of diphtheria patients should have previously received toxin-antitoxin may come as an unpleasant surprise. However, Silverman has recently reported that of 1000 children in Syracuse who received a full course of toxin-antitoxin, 31% gave a positive Schick test 6 months later. In a clinic with which the writer is personally connected, of 219 children who received a full course of toxin-antitoxin and a Schick test within 1 year, 31% gave a positive reaction. These children were all under 6 years of age, at which time immunization is supposed to be most effective.

Reactions following the use of therapeutic serums are, on the whole, mild. Gordon and

Creswell report only 2 severe reactions out of 791 cases. On this ground the physician working in institutions may with reason feel that he can ignore the sensitivity induced by toxin-antitoxin. To the physician who encounters these reactions in the home, however, the matter presents itself in a different light. The occurrence of serum disease, particularly if it causes many apparent symptoms, and fever, definitely prejudices the parents and parent's friends against further serum therapy. The physician himself cannot entirely escape an influence on his future decisions regarding the use of serum, especially for prophylactic purposes. Moreover, in the presence of a positive skin test he usually feels constrained to administer serum in divided doses, which is a time consuming process. Certainly no one would seriously consider withholding toxin-antitoxin because it *may* sensitize the patient to horse serum which he *may* have to receive. Nevertheless, if it is possible to actively immunize the patient to diphtheria by a method which will not so sensitize him, that method is to be preferred; and toxoid may be used in place of toxin-antitoxin.

Toxoid is prepared by freeing diphtheria toxin of high potency from organisms by filtration; the toxin is then formalinized and held at 37° C. until guinea-pig tests show it to be sufficiently detoxified. Ramon first showed that such detoxified toxins are valuable immunizing agents. His results were confirmed in animals and humans by a number of writers, and the method has been used extensively in Canada and France. In the latter country, more than 1,000,000 school children and army recruits have been immunized. Unfortunately, a number of older children and adults have developed reactions to the foreign proteins (meat extractives, peptones and endocellular substances) in the toxoid broth. Recent work on the purification of toxoids has removed this objection. It remains only to be shown that such purified toxoid retains its immunizing value. Once this shall be accomplished, the method will have much to recommend it over toxin-antitoxin. Dick & Dick have reported recently on the results of the

immunization of 100 persons with toxoid. They conclude that diphtheria toxoid is a better immunizing agent than O.1. L plus toxin-antitoxin, and add that it may be safely employed. Nevertheless, their figures show that of a total of 144 persons injected one or more times, 9 developed moderate to severe general reactions with fever from 102° to 104° F., 41 had slight general reactions, and 13 large local reactions. If such a high percentage of reactions persist they will undoubtedly act as a deterrent to the general use of toxoid.

In the meanwhile toxin-antitoxins prepared with the use of goat and sheep antitoxin respectively are obtainable on the market and are apparently just as efficacious in producing immunity as those in which horse antitoxin is used. Since toxin-antitoxin containing horse serum so often renders the patient sensitive to subsequent injections of therapeutic serum, the substitution of one of these products is highly advisable.

Table I
SKIN TESTS BEFORE AND AFTER T.A.T.
(Modified from Hooker)

PRIMARY TEST		
367		
Neg. . .		Pos.
308		59
Rec'd T.A.T.		+ 27
96		Rec'd T.A.T.
		15
+	+	0
26	36	34
		6
		9+-

Table II
SKIN SENSITIVITY BEFORE & AFTER T.A.T.
(Modified from Park)

CHILDREN				
No.	Wheal & Areola %	Wheal %	Negative %	
T.A.T.	116	27.5	45.	27.5
No T.A.T.	90	11.0	39.	50.
ADULTS				
T.A.T.	30	33.	57.	10.
No T.A.T.	187	19.	55.	26.

Table III
RELATION OF SENSITIZATION TO SERUM DISEASE
(From Gordon & Creswell)

Serum	Previous T.A.T.		Previous Serum		Not Sensitized		Total	
	Cases	%	Cases	%	Cases	%	Cases	%
Scarlet Fever								
Antitoxin	264	75.3	49	46.9	388	21.6	701	4.6
Diphtheria								
Antitoxin	283	73.5	90	41.1	1183	19.1	1556	30.2
Erysipelas								
Antitoxin	9	55.5	12	41.6	179	2.8	200	7.5
TOTAL	566	741	151	43.0	1750	18.0	2457	32.1

Table IV
FREQUENCY OF PREVIOUS HORSE SERUM INJECTIONS AMONG PERSONS RECEIVING THERAPEUTIC SERUMS
(Modified from Gordon & Creswell)

Serum	No.	Previous T.A.T. %	Serum Reactions %
Scarlet Fever	701	37.6	43.6
Diphtheria	1556	18.1	30.2
Erysipelas	200	4.5	7.5
Totals	2457	22.6	32.1

DISCUSSION

Dr. Fredric W. Lathrop (Plainfield): This is certainly an interesting and very valuable paper. From cases of my own I have had the purely clinical impression that the toxin-antitoxin sensitizes to horse serum in some cases. The 2 most severe cases of serum sickness following tetanus antitoxin I have seen this year each had received previous injections of toxin-antitoxin; 1 a month

before the tetanus antitoxin and 1 a year before. These statistics of Dr. Mitchell's certainly bear out the conclusion that the minute amount of horse serum in T.A.T. is sufficient to sensitize some children to horse serum.

We have perfectly good substitutes now in the form of toxoid for the younger children and the toxin-antitoxin made with goat serum for the older children. The sensitization due to T.A.T. is

never serious, but the serum reactions following later injections of horse serum are well worth avoiding. For the last 6 months I have been using the toxoid exclusively in the pre-school children. I have had only about 43 cases, but not one of these had any reaction whatever. It seems to be only in the case of the school child that goat serum is to be preferred. For the younger child the toxoid, and for the older child the toxin-antitoxin made with goat serum, seem indicated, and Dr. Mitchell has given us very good reasons for using them in place of the standard toxin-antitoxin.

Dr. J. F. Anderson (New Brunswick): I was very much interested in Dr. Mitchell's paper and review of the literature, for 2 reasons. First, on account of its very great practical importance in relation to serum therapy and second, because it is in a field of research in which I have been working since the first publication on the subject of Rosenau and myself in 1906.

I have been convinced that the so-called anaphylactic or protein reaction should be classified from the clinical standpoint. First, the true anaphylactic reaction in human beings which follows on the first injection of foreign protein of any kind. These cases are not infrequently fatal. They are manifested clinically by acute involvement of the respiratory system. It is of interest to note that there is no record of a death following the second injection of the same protein, and that all of the recorded deaths in the literature are either from the first injection of foreign protein or injections beyond the second. Such individuals possess an exquisite sensitiveness to foreign proteins. There are cases of death reported in the literature following performance of the intradermal skin test in individuals sensitive to the particular protein used, and I do not believe that an ordinary skin sensitization test will give the answer as to whether the individual may be one of these unfortunate persons.

The second clinical manifestation is that known as serum sickness which follows the injection of any kind of horse serum or foreign protein. Von Pirquet described this reaction as far back as 1905 and distinguished it by 2 types. The first type was in those individuals who had received a previous injection of horse serum within 6 months, and in whom the reactions followed administration of the second dose of the same serum, the symptoms developing within less than 4 days. The other type was in individuals who had either never previously received an injection of serum or who had received an injection more than 6 months previously and in whom the symptoms developed from the seventh to the tenth day.

Just here I think it should be remembered that it would be advisable to use caution in drawing conclusions in regard to relationship of the phenomena of anaphylaxis, particularly as it is observed in guinea-pigs, and the symptoms of serum sickness as noted in the human being.

Dr. H. I. Goldstein (Camden): I would like to ask Dr. Mitchell whether he feels that there is any risk in giving a child, who had previously received huge doses of horse serum, the toxin-antitoxin. I would like to answer the question negatively, but I would like to know what he thinks about it. I think some cases give rather severe reactions.

Dr. Julius Levy (Newark): I would like to ask Dr. Mitchell to make clear to us whether his statement about 31% being Schick positive after the administration of toxin-antitoxin is duly accepted? It is my impression that Park has maintained that

it is practically limited to 5%. That is a very important question. If we cannot assure our patients that they are going to be protected more than in 1 out of 3 chances, I think we will not be quite so enthusiastic about urging toxin-antitoxin for all children. Dr. Mitchell should, I think, make very sure that statement is well authenticated and generally accepted.

Dr. John McK. Mitchell (Closing): I did not attempt to give any explanation of why there was a higher percentage of reactions from toxin-antitoxin than there was in the cases which had previously received therapeutic serum because their own explanation of that I did not think was clear and satisfactory. The explanation they gave was this, that sensitization is better carried out by the injection of small amounts at different intervals than by one injection of a large amount. They added that they thought the time limit played a part in this, that is, the length of time between receiving the injection of toxin-antitoxin and the subsequent injection of therapeutic serum. In a very large percentage of those who had previously received diphtheria toxin-antitoxin and subsequently got the diphtheria antitoxin the time was very, very short.

In answer to the second question regarding the danger of giving toxin-antitoxin after diphtheria antitoxin has been given, I do not believe there is any. A full course of toxin-antitoxin was given to 15 children known to be sensitive, without any difficulty.

In reply to Dr. Levy's question, he evidently misunderstood what I said. I did not refer to 31% of diphtheria cases, but said there were 31% of positive Schick tests. It means that 31% of the children who had received toxin-antitoxin did not get an immunity from one source and if you will look into the literature you will find there is a great deal of discussion at the present time as to the immunizing effect. Dick and Dick in their last paper went so far as to use 5 doses of toxin-antitoxin in order to insure immunization.

THE PNEUMOCOCCUS IN NEPHROSIS*

WALTER B. STEWART, M.D.,

Atlantic City, N. J.

The older literature on nephritis abounds in reference to the extreme susceptibility to intercurrent infections of individuals afflicted with that form of nephritis classified as parenchymatous or tubular, now more often called nephrosis. The intercurrent infections mentioned most frequently are pneumonia, pleurisy, pericarditis, endocarditis, peritonitis and erysipelas. The fact that a close relationship exists between nephrosis and pneumococcus infections, in particular pneumococcus peritonitis, was not recognized until the

* (Read before the Pediatric Section Medical Society of New Jersey, Atlantic City, June 13, 1929).

appearance in 1914 of the monograph by Volhard and Fahr⁽¹⁾, in which they described 3 cases of typical nephrosis all of which terminated in pneumococcus peritonitis. In another monograph by Volhard⁽²⁾, published in 1918, the statement appears that of his 7 cases of genuine nephrosis observed up to that time, 6 had died, from a pneumococcus peritonitis secondary to pneumonia or to bronchitis. Since the establishment of this frequent association of the two conditions only 15 years ago, occasional reports of similar cases have appeared in the literature: 4 cases by Davison and Salinger⁽³⁾ in 1927; 2 cases by Schwarz and Kohn⁽⁴⁾ in 1922; 2 by Schönfeldt⁽⁵⁾ in 1924; and 1 case each by Munk⁽⁶⁾ in 1918, Bock and Mayer⁽⁷⁾ in 1920, Vándorfy⁽⁸⁾ in 1921, Stolz⁽⁹⁾ and Bohnenkamp⁽¹⁰⁾ in 1922, Graham-Bonnalie⁽¹¹⁾ in 1923, Fancini⁽¹²⁾ and Kaufmann and Mason⁽¹³⁾ in 1925, Nourse⁽¹⁴⁾ and McElroy⁽¹⁵⁾ in 1927, and Kohn⁽¹⁶⁾ and Amberg⁽¹⁷⁾ in 1928. Hence there are definite case reports of 23 instances of nephrosis in which pneumococcus peritonitis developed, and casual mention of several others. As early as 1906, Libman⁽¹⁸⁾ had observed (although unpublished) the association of the two conditions in a child aged 8 years.

Discussion of this interesting relationship necessitates a clear understanding of the term nephrosis. It was proposed by Müller, in 1905, in contradistinction to the term nephritis in order to differentiate the degenerative from the inflammatory form of renal disease. However, this was a purely pathologic distinction and made the term nephrosis too broad to be of value clinically. The nephrosis of Müller, with its varying symptomatology, corresponded with the chronic parenchymatous nephritis of other authors. In 1914 Volhard and Fahr delimited genuine or lipid nephrosis from the more general group, and described the definite clinical syndrome associated with it, and the characteristic lipid degeneration of the renal tubules.

The outstanding features of nephrosis are the edema and the proteinuria. Appearance of edema is usually the first evidence of the disease. In many cases it is of gradual onset, but frequently involves the entire body in a

general anasarca with effusions into the serous cavities. The edema appears and disappears in a mysterious manner. The individual with nephrosis may, for no apparent reason, lose his accumulated fluids in the course of a few days by means of a remarkable diuresis, and become a shadow of his former self, entirely free from edema. He may remain in this condition for weeks or for months before a reaccumulation takes place. The development of some acute infection, such as peritonitis, sinusitis or a common cold, frequently initiates an attack of edema. Subsidence of the infection or drainage of the focus may bring about a rapid loss of this fluid.

Proteinuria is a constant feature of nephrosis, although during a period of freedom from edema only small amounts of protein may appear in the urine. It may contain 10 or 20 gm., occasionally even 50 gm., of protein in the total daily output. It is evident that the loss of such a large amount is of serious consequence to the organism. The greater part consists of albumin, very little of globulin. There results a reversal of the albumin-globulin ratio in the blood plasma, with 90% of the plasma proteins in the form of globulin, and only 10% in the form of albumin. In the normal blood plasma 37% of the proteins appear as globulin, and 63% as albumin. The constant loss of protein in the urine also reduces the level of the proteins in the blood plasma to 4%, from a normal level of 7%. In lipid nephrosis one finds a lowering of the plasma proteins and a reversal of the albumin-globulin ratio. This causes starvation of the tissues and marked loss of body weight, seen best during a period of absence of edema. Starvation of the tissues produces a lipoidemia. In many cases a layer of fat will become visible in a specimen of blood taken recently from the patient. The cholesterol content of the blood, which normally is 0.2%, may rise in nephrosis to 1.2%. Doubly refractile lipid granules are present in the urine from most cases, and also pathologically in the cells of the convoluted tubules of the kidneys. Not only the lowering of the blood proteins but also increased capillary contraction in all tissues of the body, with conse-

quent diminution of the supply of food and of oxygen, are factors in the production of lipoidemia. One may observe this contraction of the capillaries clinically in the palor of nephrotic individuals, although a true anemia is seldom present. Capillary studies of the nail-beds render it visible.

There has been much discussion of the nature of lipoid nephrosis. Many authorities favor the view, introduced by Epstein, that the condition is not primarily of renal origin, but rather is a disorder of lipid metabolism which affects secondarily the renal tubules. Epstein has found a decrease in the metabolic rate in many cases of true nephrosis, and has effected beneficial results by the oral administration of thyroid. Furthermore, Wolhach has stated that examination of the thyroid glands obtained at necropsy from 2 of his 8 cases of nephrosis in children showed complete absence of colloid, pronounced engorgement of the capillaries, and atrophy and desquamation of the alveolar epithelium. Changes of a similar nature have been observed in many infections, although not to the same degree. In a case of nephrosis, Jungmann secured at biopsy kidney tissue which was entirely normal, and later in the same case at necropsy found degenerative changes in the kidney tubules. Christian has called attention to the possibility that these renal lesions are the result of terminal infection. On the other hand, experiments done recently at the Rockefeller Institute tend to prove that there is an actual change in the cells of the kidney. Gum acacia injected intravenously in individuals with nephrosis passed rapidly from the blood-stream into the urine. Normally no such excretion can occur. Many of the features usually present in renal disease are absent in nephrosis. For instance, the renal function is normal, as determined by the urine-concentration test, by the phenol-sulphone-phthalein test, and by the blood nitrogen figures. The blood pressure is normal. There is no enlargement of the heart. There is no hematuria, but there are usually casts and leukocytes in the urine.

The etiology of lipoid nephrosis is obscure. In some instances it is caused by the amyloid-

producing diseases, such as syphilis, tuberculosis or chronic suppurative infections. Munk observed that syphilis produces the most classic picture of pure lipoid nephrosis. Most cases of nephrosis give no history of illness directly preceding the onset of symptoms. Although Clausen, Marriott and Aldrich have claimed that staphylococcus infection of the nasal sinuses is an important etiologic factor in nephrosis, some other observers have not substantiated their findings. In a series of 11 cases, Clausen found the staphylococcus present in infected sinuses in every instance, and reported that adequate drainage of the focus instituted a prompt diuresis. Bacteriemia was not present.

Occasionally acute hemorrhagic nephritis has preceded the onset and is the causal factor. The acute condition may merge into the chronic, or there may be an intervening period of apparently good health. Löhlein, and other observers, believe that almost invariably an acute glomerulo-nephritis precedes the onset of nephrosis, usually not severe enough to produce clinical symptoms, yet severe enough to bring about a permanent injury to the glomerular epithelium. This injury results in the characteristic proteinuria. Stolz⁽⁹⁾ has offered evidence to show that the pneumococcus may be the causative agent of the acute nephritis. In one case of acute nephritis where death occurred 1 month after onset of symptoms with kidneys typical of nephrosis, there was a pneumococcus peritonitis and septicemia. Gram-positive diplococci were present in the walls of the glomerular capillaries, in the cells of the tubules, and in the intertubular capillaries. In another case he found pneumococci in the intertubular connective tissue and in the epithelial cells. A preceeding history of acute nephritis can be elicited so seldom because of the fact that the pneumococcus is a benign organism in the etiology of nephritis. Pneumonia rarely has nephritis as a complication, although mild degenerative changes in the renal parenchyma are not uncommon. Fowler⁽¹⁰⁾, in describing pneumococcus nephritis, stated that he had seen 7 cases, only 1 of which terminated fatally. Usually the pneumonia and the acute neph-

ritis set in almost simultaneously, but in 1 instance the nephritis preceded the pneumonia by 11 days. He concluded that pneumococcus nephritis, like that of scarlet fever, is of toxic rather than bacterial origin.

Munk⁽⁶⁾ described the typical, large, white kidneys from a case of nephrosis which had originated clearly in a pneumococcus bacteremia. A long continued, high fever had preceded a period of normal temperature, which, in turn, was followed by chills and rises of temperature to 104° or 105° F. every 2 or 3 days for weeks. The urine contained 2 or 3% of protein, a few casts and leukocytes, and many doubly refractile lipoids. The spleen was much enlarged. In the left ventricle there was an organized thrombus the size of a hen's egg, containing the pneumococcus in pure culture. The kidneys showed changes typical of nephrosis, namely, lipoid degeneration of the tubular epithelium without inflammatory changes of the glomeruli. Munk stated: "In chronic pneumococcus infection a lipoid nephrosis appears, which, to be sure, does not have the usual clinical appearances of lipoid nephrosis, except in the urine, probably because of the cachexia always present. No other bacterial infection produces a similar renal picture." He described also the changes in the kidneys in fatal cases of pneumonia, stating: "There were albuminous degeneration of the epithelial cells of greater or less degree, and a congestive hyperemia of the kidneys such as is found in almost no other acute disease; and, in severe, toxic cases, a moderate epithelial necrosis of the tubules." Furthermore, in the kidneys of an infant, aged 4 months, Bohnenkamp⁽¹⁰⁾ observed the changes of nephrosis resulting from pneumonia of 1 week's duration with pneumococcus septicemia. With these facts in view, it is difficult to deny at least some etiologic relationship of the pneumococcus to nephrosis.

An important and interesting fact is that secondary infections with the pneumococcus so often arise in the edematous tissues of individuals with nephrosis. This is true especially of pneumococcus peritonitis, of which we have observed already that 23 cases appear in the literature, with indirect references to

many more. It is not known whether these infections are caused by the original pneumococcus which may have produced the nephrosis and remained latent in the kidneys in the interim, or whether it is a secondary invader from some focus in the lungs or in the nasopharynx. It is a fact that pneumonia or bronchitis usually precedes or accompanies onset of the peritonitis. The pneumococcus conducts periodic invasions of the bloodstream from this focus, wherever it is, lodges in the serosa of the peritoneum, where, because of the presence of ascites, the serous cells have lost their bactericidal power, and initiates a peritonitis. The peritonitis may be so mild that it produces no clinical symptoms, and a turbid ascitic fluid, in which float flakes of fibrin, may be the only evidence of its presence. It may produce the typical symptoms and signs of peritonitis, but if one defers laparotomy, it may disappear entirely in a few days. In some cases the acute process subsides, and in a localized area of the peritoneal cavity an abscess forms which requires laparotomy, or, if neglected, may discharge its contents spontaneously through the umbilicus, an event which is considered pathognomonic of pneumococcus peritonitis. Usually the bacteria are of such virulence and the resistance of the tissues is so low that the infection is overwhelming and the patient dies. In some cases, such as that reported by Kohn⁽¹⁶⁾, as many as 4 or 5 attacks of peritonitis have occurred. Nephrosis in itself never causes death; secondary infection is frequently the cause. For this reason, the earliest possible diagnosis of the presence of peritonitis is essential. The appearance of any unexplained fever or of abdominal pain in any individual with nephrosis and ascites should cause one to suspect at once pneumococcus peritonitis. As Libman⁽¹⁸⁾ has pointed out, the simple insertion of a needle into the peritoneal cavity, and the withdrawal of a few cubic centimeters of ascitic fluid which can be centrifuged and the sediment from which can be stained for the pneumococcus, is often sufficient to establish an early diagnosis. This permits of early serum therapy in cases yielding Pneumococcus Type I or Type II. In

the ascitic fluid from one of Libman's cases *Pneumococcus* Type I was present, but in the blood *Pneumococcus* Type IV. The type of organism present in the ascitic fluid rather than in the blood should determine the administration of serum.

It is remarkable that the onset of these infections usually initiates a diuresis, so that in a few days the edema has disappeared. Apparent cures of nephrosis originate in this way. In fact, Fanconi⁽¹²⁾ has suggested the energetic use of pneumococcus vaccines in the treatment of patients with genuine nephrosis. Three cases from the Harriett Lane Home of the Johns Hopkins Hospital, reported through the courtesy of Dr. Park, illustrate the tendency to recovery of many cases of nephrosis complicated by pneumococcus peritonitis.

Case 1 (H.L.H. 52,264). A boy, aged 5½ years, admitted in January, 1929, suffered repeated attacks of anasarca during the preceding 2 years, since December, 1926, and showed the findings typical of nephrosis. May, 1927, after a laparotomy for pneumococcus peritonitis, the edema promptly disappeared. Further attacks of edema followed acute respiratory infections. In February, 1929, there was a second attack of peritonitis, caused by *Pneumococcus* Type IV. Removal of 800 c.c. of chyliform fluid by paracentesis produced a remarkably rapid disappearance of the edema. A second paracentesis, done 11 days after the first, revealed only a few drops of sterile fluid. May, 1929, 3 months later, he was in perfect health.

Case 2 (H.L.H. 22,936). A girl, aged 12 years, first developed signs of nephrosis after an attack of pertussis at the age of 4 years, in 1921. There were numerous admissions to the hospital. In 1923 there was a mild attack of pleurisy. In 1925 there was a generalized pneumococcus peritonitis during which a pronounced anasarca developed. After several weeks of the infection, during which her life was despaired of, the edema disappeared suddenly and completely, and the infection became localized in a pelvic abscess which was opened and drained. In the past 4 years there has been no recurrence of edema and she has

remained entirely well, except for the presence of a small amount of protein in the urine.

Case 3 (H.L.H. 59,004). A boy, aged 5 years, admitted in August, 1928, developed the first symptoms of nephrosis in May, 1928. For 6 months he remained in the hospital, during which there were numerous, sharp elevations of temperature for which no explanation could be found. At one time during the third month in the hospital the temperature rose to 104° F., and for 3 days there were sharp pains and pronounced tenderness in the lower part of the abdomen, together with vomiting and diarrhea. The anasarca melted away, and on the fourth day he appeared normal. Since that time there have been 2 similar attacks. In February, 1929, he was well and free from edema. Undoubtedly these were attacks of pneumococcus peritonitis which subsided without operative interference.

RESUME OF CASES FROM LITERATURE

(1) Volhard and Fahr, 1914: 1. Male, aged 15 yr.; duration 1 yr.; 2 mo. after onset was operated on for "appendicitis", at which time pneumococcus peritonitis was found; recovered; later return of symptoms, along with bronchopneumonia and pneumococcus peritonitis; death; autopsy.

2. Male, aged 22 yr.; duration 6 mo.; bronchitis, pleurisy, bronchopneumonia, pneumococcus peritonitis; death; autopsy.

3. Female, aged 15 yr.; pulmonary tuberculosis for 1 year; duration about 1 mo.; bronchopneumonia, pneumococcus peritonitis; death; autopsy; amyloid kidneys.

(3) Davison and Salinger, 1927: 1. Male, aged 6 yr.; duration 6 wk.; erysipelas, pneumonia, septicemia, pneumococcus peritonitis (Type II); death; autopsy.

2. Male, aged 5 yr.; duration 6 mo.; bronchopneumonia, pneumococcus peritonitis (Type IV); death; autopsy.

3. Female, aged 4 yr.; duration 12 mo.; bronchopneumonia, pneumococcus peritonitis (Type I); death; autopsy.

4. Male, aged 11 yr.; duration 22 mo.; bronchopneumonia, pneumococcus peritonitis (Type II); death; autopsy.

(4) Schwarz and Kohn, 1922: 1. Male, aged 11 yr.; duration 4 mo.; lobar pneumonia, pneumococcus peritonitis; death.

2. Duration 2 mo.; no details; pneumococcus peritonitis; death.

(5) Schönfeldt, 1924: 1. Female, aged 2½ yr.; pneumococcus peritonitis; death; autopsy.

2. Female, aged 2¼ yr.; pneumococcus peritonitis; death; autopsy.

(6) Munk, 1918: Male, duration many weeks; chills and fever, septicemia (pneumococcus); death; autopsy; thrombus in left ventricle.

(7) Bock and Mayer, 1920: Female, aged 43 yr.; duration 3 mo.; bronchopneumonia, pneumococcus peritonitis; death; autopsy.

(8) Vándorfy, 1921: Male, aged 24 yr.; duration 7 mo.; syphilitic nephrosis, pneumococcus peritonitis; death; autopsy.

(9) Stolz, 1922: Male, aged 3 yr.; duration 1 mo.; pneumonia 1 yr. before onset of nephrosis; septicemia, pneumococcus peritonitis; death; autopsy.

(10) Bohnenkamp, 1922: Female, aged 4 mo.; duration 2 wk.; pneumonia; septicemia (pneumococcus), peritoneal hemorrhages; death; autopsy.

(11) Graham-Bonnalie, 1923: Female, aged 9 yr.; duration 6 wk.; bronchopneumonia, pneumococcus peritonitis; death; autopsy.

(12) Fanconi, 1925: Male, aged 3 yr.; duration 1 yr.; bronchitis; pneumococcus peritonitis (localized abscess); recovery.

(13) Kaufmann and Mason, 1925: Male, aged 29 yr.; duration 7 mo.; pneumococcus peritonitis; death; autopsy.

(14) Nourse, 1927: Pneumococcus peritonitis (Type IV); recovery.

(15) McElroy, 1927: Male, aged 17 yr.; duration 11 mo.; bronchopneumonia, septicemia, pneumococcus peritonitis (Type II); death; autopsy.

(16) Kohn, 1928: Aged 7 yr.; duration 4 yr.; 5 attacks of peritonitis, 4 with Pneumococcus Type IV and 1 with Streptococcus hemolyticus (recovered from blood in each

attack) died of pneumococcus peritonitis; autopsy.

(17) Amberg, 1928: Female, aged 9 yr.; duration 1 yr.; sinusitis, pneumococcus peritonitis; death.

(18) Libman, 1906 (unpublished): Female, aged 8 yr.; duration several months; bronchopneumonia, pneumococcus peritonitis (proved by aspiration and culture of ascitic fluid); death.

SUMMARY

(1) Compilation from the literature of 23 cases of nephrosis in which pneumococcus peritonitis developed emphasizes the close relationship which exists between the two conditions. Only 2 of the patients recovered. Two-thirds occurred in children. To be sure, many cases have recovered which have not been reported, and many have remained unrecognized because of the mildness of the symptoms.

(2) Three additional cases of nephrosis complicated by pneumococcus peritonitis are recorded, all in children, and all showing at least temporary recovery. One child has remained symptom-free for 4 years.

(3) The occurrence of unexplained fever or of abdominal pain in a case of nephrosis with ascites should lead one to suspect pneumococcus peritonitis. One should attempt to confirm the suspicion at once by the aspiration of ascitic fluid, and if Pneumococcus Type I or Type II is found, serum therapy may be instituted.

(4) Numerous mild attacks of peritonitis with recovery may occur, although frequently the first attack is fatal.

(5) Since apparently complete recovery from nephrosis has followed an infection with pneumococcus in a number of instances, the use of pneumococcus vaccine in the treatment of nephrosis has been suggested.

(6) Drainage of infected foci often initiates a diuresis which results in complete disappearance of the edema.

(7) In a few cases it has been proved that the pneumococcus was the cause of the nephrosis and of the underlying acute nephritis.

BIBLIOGRAPHY

1. Volhard, Franz, and Fahr, Theodor: Die Brightsche Nierenkrankheit Klinik, Pathologie und Atlas, Berlin, J. Springer, 1914, 292 pp.
2. Volhard, Franz: Die Doppelseitigen Hämatogenen Nierenkrankungen (Bright'sche Krankheit), Berlin, J. Springer, 1918, 341 pp.
3. Munk, Fritz: Pathologie und Klinik der Nierenkrankungen (Nephrosen, Nephritiden und Schrumpfnieren), 2nd ed., Berlin and Wien, Urban and Schwarzenberg, 1925, 661 pp.
4. Bock, Georg, and Mayer, Edmund: Ein Fall von Genuiner Nephrose mit Pneumokokkenperitonitis als Ausgang, Med. Klin. 16:101-103, (Jan. 25) 1920.
5. Vándorfy, Josef: Ein mit Pneumococcus-peritonitis verlaufender Fall von Nephrose, Med. Klin. 17:656-657, (May 29) 1921.
6. Stolz, Ernst: Über die sogenannte Pneumokokkennephrose, Med. Klin. 18:1376-1378, (Oct. 22) 1922.
7. Bolkneukamp, Hans: Zur Frage der Nephrosen, Virchow's Arch. 236:380-419, 1922.
8. Schwitz, Herman and Kohn, J. L.: Studies of Nephritis in Children I Nephrosis Am. J. Dis. Child. 24:125-129 (Aug.) 1922.
9. Graham-Bonalle, F. E.: A Case of Pneumococcal Peritonitis Associated with Nephritis, Guy's Hosp. Reports, 73:455-457, (Oct.) 1923.
10. Schönfeldt, B.: Pneumokokkenperitonitis bei schweren ödematösen Zuständen im Kindesalter Monatschr. f. Kinderh. 28:334-342, (July) 1924.
11. Franconi, G.: Zur Oedemfrage; Genuine Nephrose und Idiopathisches Oedem, Jahrb. f. Kinderh. 110:12-20, (Sept.) 1925.
12. Kaufmann, Joseph, and Mason, Edward: Nephrosis, a Clinical and Pathologic Study, Arch. Int. Med. 35:561-570, (May 15) 1925.
13. Nourse, J. D.: Nephrosis with Pneumococcal Peritonitis, Am. J. Dis. Child. 34:132, (July) 1927.
14. McElroy, J. B.: Nephroses, J.A.M.A. 89: 940-945, (Sept. 17) 1927.
15. Davidson, W. C., and Salinger, Robert: Tubular Nephritis (Nephrosis) in Children and Its Relationship to other Forms of Nephritis, Bull. Johns Hopkins Hosp. 41:329-353, (Dec.) 1927.
16. Kohn, J. L.: Lipoid Nephrosis, Arch. Path. 6:523-529, (Sept.) 1928.
17. Amberg, Samuel: Three Cases of Nephrosis, Am. J. Dis. Child. 35:343-344, (Feb.) 1928.
18. Libman, Emanuel: Personal Communication.
19. Fowler, J. S.: In Garrod, A. E., Batten, F. E., and Thursfield, Hugh: Diseases of Children. London, E. Arnold, 1913, 603-661.

DISCUSSION

Dr. F. C. Johnson (New Brunswick): The theoretic and known facts about the relationship between nephrosis and pneumococcus peritonitis have been quite exhausted by Dr. Stewart. One thinks, however, that nephrosis may not be an entity apart from the other nephritides. Dr. Henry Christian speaks of subacute nephritis with edema as being what others call nephrosis. Other terms used are tubular nephropathy and parenchymatous nephritis. As the age incidence is chiefly between the third and seventh years it is no wonder that the pediatrician is most apt to see such cases and the newer pediatric texts discuss the condition at length. The ability to reproduce the symptom complex by feeding rabbits on cholesterol seems to argue for the metabolic origin of the disease and the effect of thyroid and parathyroid therapy is significant though not thoroughly understood.

Further, is the presence of the pneumococcus

significant as an etiologic factor? So good an authority as Marriott looks to focal staphylococcus infections as the most important factor and his views are held by Clausen. However, the best articles on the subject mention the frequency of pneumococcus peritonitis as a complication, and not the only complication. In spite of the fact that pneumonia is the most frequent pneumococcal infection of the body, and although it is so frequently associated with a blood stream infection, I do not find pneumonia mentioned as a predisposing or preceding cause of nephrosis. A toxin, some toxin carried by the blood, is most commonly to be found or inferred in these cases and it may be the toxin of pneumonia, syphilis, diphtheria, staphylococci, streptococci, or an inorganic poison such as mercury salts.

Clinically, it is important to be on the lookout for pneumococcal peritonitis where a rise of temperature occurs in cases of nephrosis. The significance of the association will have to be developed more fully in the future. Davison points out that 74% of his cases of nephrosis were afebrile and showed no leukocytic increase, which argues against infection as a cause of the disease.

Again it is interesting that nephrosis is not mentioned as a complication of pneumococcus peritonitis by the surgeons who have reported large series of these cases. In these reports I have been unable to find any mention of kidney complications or of edema, notwithstanding the fact that these are very severe infections. John Fraser, the Dean of Pediatric Surgeons, says in his splendid book: "Pneumococcal peritonitis is probably the most fatal acute disease with which the surgeon has to deal." In the fulminating case there is not time for such a picture as that of nephrosis to develop as the patient may die in a matter of hours, but in the less acute and chronic cases of which I have had the fortune to see 2, there does not seem to be any suggestion of nephrosis developing. Perhaps surgical cases do not receive as much detailed study of their metabolism as they deserve but it will be interesting to note whether known cases of pneumococcus peritonitis may have subacute nephritis with edema, albuminuria and hypercholesterolemia and the negative findings characteristic of what we are now recognizing as nephrosis.

Dr. H. B. Silver (Newark): Dr. Stewart's paper has been very interesting and very comprehensive. Any discussion I would have to offer would be more from a theoretic than practical standpoint. The question raised is still open to considerable doubt. It has been very interesting to observe in atrophic infants how often pneumococcus peritonitis occurs, so-called static peritonitis with atrophy, without any real definite underlying cause and without any pneumonia.

About 2 years ago I saw a case of nephrosis complicating an acute nephritis. Dr. Epstein brought out some very interesting facts in this connection. He believed at that time that the nephrosis was a purely metabolic disease comparable to the ordinary diabetes except that the kidney excreted certain albuminuric elements. When the kidney became sclerosed the entire nephrosis disappeared, the cholesterol returned to normal and the case became one of pure chronic interstitial nephritis. Dr. Epstein advanced the reasoning that while the albumin in the nephrotic is being excreted the changes in the blood produce this condition with a high cholesterol. With a true inflammatory kidney condition the kidney function is interfered with to such an extent that the albumin can be no longer excreted and the

picture of nephrosis as we see it with the edema disappears. I think this is a point worth bringing out with reference to this matter, so let us settle our minds as to whether we are dealing with any type of kidney condition in nephrosis, whether it is not purely a metabolic thing, possibly of the thyroid or some condition which has no primary relationship to the kidney.

Dr. Arthur Stern (Elizabeth): Inasmuch as we are speaking about the pneumococcus, I would like to refer to a case of a boy 2 months old who was brought in the hospital with a subnormal temperature and vomiting, in a dying condition. The abdomen was not very much distended, but at autopsy a pneumococcus peritonitis was shown to be present, without any other pathologic findings.

Dr. Hyman I. Goldstein (Camden): "Nephrosis", strictly speaking, has reference to those cases in which the predominant lesion is degeneration of the tubular epithelium, in contradistinction to the ordinary cases of the essentially exudative, inflammatory or proliferative type of "nephritis". The term, as used by Dr. Stewart—"pneumococcus nephrosis"—would mean a nephrosis *specifically* due to the *pneumococcus organism*—just as we speak of "pneumococcus endocarditis" or pneumonia. This is a misnomer. Since the cases he mentions all recovered, we can only accept them as instances of "pneumococcus peritonitis" associated with nephrosis.

The type of degeneration in the cases of true nephrosis varies. We may have amyloid, lipoid, fatty and albuminous. We have the Epstein type of lipoid nephrosis associated with marked albuminuria, persistent edema, high blood cholesterol, lowered basal metabolism, hypoglycemia, etc. This condition is probably due to some infection, possibly associated with some endocrinologic or metabolic dysfunction. We have cases of "nephrosis" occurring in some toxemias of pregnancy, in syphilis, in bichloride of mercury poisoning, etc. If the pneumococcus were a direct and frequent cause of "nephrosis" as reported by Dr. Stewart then why do we not meet with such cases more often in pneumococcal pneumonias, pneumococcal endocarditis and meningitis? If infection *alone* were always the cause of "nephrosis" (lipoid) then why do we not see more cases resulting from attacks of scarlet fever and other streptococcal infections?

Wolbach and Blackfan, of Boston, found that the thyroid, liver and kidney showed marked colloid depletion in a study of 8 cases of nephrosis that came to necropsy. They are inclined to believe that the kidney condition, especially in children is *not* the essential thing, and that any term connecting the kidney with this disease is a misnomer. They believe there is some thyroid change definitely related to this type of nephrosis. Long before Friederick Müller (25 or 30 years ago) introduced the term "nephrosis", Bright in 1836 described the occurrence of a change in the globulin-albumin ratio and decreased blood-protein.

What therapy was used to clear up the "nephrosis" in the recovered cases reported by Dr. Stewart?

Dr. Julius Levy (Newark): I think the theoretic discussion of this question has a rather important practical portent. Sometime ago I remember we had seen 3 or 4 cases in a period of a year or two. When we saw a lot of albumin in the urine the disposition was to think that the child was seriously sick and that we should restrict the diet. When we came to realize that we were dealing with nephrosis, believing it to be of metabolic ori-

gin, we gave a high protein diet and possibly put the patients on thyroid. It seems to me that Dr. Stewart used the words nephritis and nephrosis sometimes interchangeably. I think that causes a good deal of confusion. I think we should at the present time accept nephrosis as a metabolic disturbance and rather remove from our minds the thought that it is an infection. I would also point out that any theories predicated on the incidence of infection in nephrosis must be very difficult of confirmation. We could almost prove that any disease is due to infection because these children are having infections all the time. It is easy to suggest that the condition has a relation to scarlet fever or pneumonia, but we would have to have a large series to get any real information. I think we should accept the metabolic theory and thereby not interfere with the child's nourishment by unnecessarily restricting its diet.

SUGGESTIONS FOR MODIFICATION OF OPERATIVE PROCEDURE AND POSTOPERATIVE TREATMENT OF SUBMUCOUS RESECTIONS

CHARLES S. MCGIVERN, M.D.,
Atlantic City, N. J.

(Read before the Section on Ophthalmology, Otolaryngology and Rhinology, Medical Society of New Jersey, Atlantic City, June 14, 1929.)

Few, if any, operative procedures common to nose and throat surgery have the appeal, to one's surgical and mechanical sense, inherent in the submucous resection. It is a sound, rational, well conceived, satisfying operation which, if well done, on proper indication, gives a most satisfactory result. Unfortunately, it is too frequently incompletely performed and the results are nil. The personal views of the writer are that little more can be desired than a nose with clean antrums and a straight septum, except in cases of hyperesthetic rhinitis where there is a thickening and hypersensitiveness of the mucous membrane of the nasal partition. If one is to judge from surgically treated septums that come under observation, any measure that would seem to make submucous resection an easier operation to perform should be welcome. This procedure has undergone but little modification in technic since first performed by Freer, in 1911, and has superseded practically all older procedures for the correction of septal deformities. That it was a brilliant conception cannot be gain-

said, but the writer believes that many of the difficulties attending the procedure can be eliminated by modifications of the operative technic and the after-treatment. He also believes that many times the submucous operation should be dispensed with and a complete septal resection done.

The first valuable modification of this operation was suggested by "Halle" and consists in the making of the flap incision so as to form a "U" with the base forward. This is particularly well adapted for those cases which have a sharp shelving edge low down. The second important modification is that which makes an incision completely through the cartilage and membrane of both sides and permits the dissection to proceed from either nares. If this is done one can sew the incision with dermal suture, which is removed on the sixth day, and have healing without perforation.

I am fully aware that what follows controverts the accepted idea of initial incisions in submucous resection; i. e., that you cannot go through the septum at points opposite without inducing a perforation. You can't if you don't sew them; if you sew them properly, you can. You don't need to be afraid of incising the septum all the way through, if this will facilitate the operation; and very frequently it does, particularly if you have very difficult spurs on the left side. You can facilitate your procedure by cutting all the way through the cartilage and mucous membrane and dissecting from both sides. The reason why I know this is true is because it is done all the time in operations that remove deformities of the tip. The cartilage and mucous membrane on both sides is cut through and if it is sewed together it heals perfectly. I have done it myself many times in submucous resections and other types of operation.

Another procedure, which has given great satisfaction, and which the writer believes to be original with himself, is the sewing together of the flaps and omitting packing. This can be done with special instruments and is absurdly easy. The instruments required are: a specially designed speculum which has a long and a short blade, the long blade being fenest-

rated and having a sharp tongue-like projection at the distal end of the fenestra; and, a special needle for sewing. With these instruments, it is possible to suture as far back as may be necessary and to extract the suture without difficulty. After the suture is placed posteriorly and the free end brought forward by entangling it on the tongue of the speculum, one end of the suture remains attached to the needle, which is then to be brought forward and again passed through the cartilagenous septum in front of the incision which marked the beginning of the operation; when this latter maneuver is completed we have both ends of the suture in the right or left nares, as may be, and they can be tied. For best results, 3 sutures should be inserted; one as high as possible, one midway and one below. When these are placed and tied moderately tight, the flaps will be in apposition and little bleeding or postoperative swelling will result.

This technic, compared with the usual postoperative treatment which requires packing in both nostrils for from 5 to 48 hours, seems decidedly safer and more humane. This method can also be used to render perforations less frequent and one can work with a great deal more ease and freedom with a known, easy, reparative measure at hand than would otherwise be the case. Earlier in this discourse mention was made of greater possibilities than are generally recognized in the "Fine operation" (that of removal of the septum in toto.) The writer has done this at the suggestion of Dr. Skillern in 6 cases where submucous resections had previously been performed. Three of these patients were hay-fever victims, and 3 suffered from hyperesthetic rhinitis. The results in all instances were most satisfactory to the patients, because the sneezing attendant prior to operation was completely relieved. Contrary to expectations, not much crusting was observed 6 weeks after operation.

I want to amplify that. I talked to Ross Skillern about a patient we had, a patient of mine that I referred to him, and he advised a total resection of the septum. I didn't believe that it was the thing to do. But the man had

such a satisfactory result that I later tried it on 3 patients, and they all got perfectly satisfactory results. Previously, I had always been of the opinion that there would be crusting for a long period of time. Strangely enough, these cases had very little bother though the perforation was made absolute. I mean the septum absolutely removed. In a great many cases there isn't room in the nose for proper breathing, even after a good submucous resection is done and in these cases I think this operation ought to be considered because the results seem so very satisfactory. Skillern, I know, has done it for years and is a very strong advocate of the operation in selected cases.

CONCLUSIONS

Better work, with less discomfort to the patients, can be and should be done on septums.

Complete resections should supplant submucous resection where there is thickening and pronounced hyperesthesia of the mucous membrane of the septum, and should be considered in all patients of the so-called allergic type.

DISCUSSION

Dr. W. D. Olmstead (Atlantic City): It is always a pleasure to listen to and discuss a paper of Dr. McGivern's as he always says something of interest and says it well. Probably no operation about the nasal structure has been as much abused as that of submucous resection. The number of large perforations in the septum following submucous resections is but a criterion of the faulty technic, carelessness or insufficient skill of operators.

There should be two, and only two, major indications for a submucous resection, and they are obstruction and ventilation. Dr. McGivern does well to emphasize that the end-results desired are not merely a straight septum, but clean antrums as well.

The procedure which Dr. McGivern originated and practices, of sewing together the flaps and omitting packing, works beautifully and is a decided step forward. It largely eliminates bleeding and postoperative swelling, and does away with the postoperative discomfort for the patient. I cannot agree with him that it is an absurdly easy procedure, but with the special instruments (the needle and speculum) he uses, it is a technic that can be acquired with practice.

The "Fine" operation is undoubtedly indicated in some cases of gross perforation and hyperesthetic rhinitis, but it is a dangerous procedure in the hands of other than skilled operators.

Dr. N. W. Burritt (Summit): I happen to be a subject of mal or bad result of submucous resection. This is no reason, however, why I do a great deal of nasal work, and no reason why I am inter-

ested in it. I think a large number of bad results from submucous resection and other intranasal manipulations at present exist because some years ago it was thought that the general surgeon had sufficient knowledge and gentleness to do intranasal work. I can swear at least one of them did not.

I am very much interested in nasal work, more so than anything else in the head, and I would be very glad to know if anyone else has had the experience I have had with submucous resections. For about 3 years I have not packed any of my nasal cavities and I have not had any postoperative hematomas. I have not had any consequent septal infections nor abscess formations and I have not had any of the infections that so frequently follow submucous resections*, because of blocking up of the air passages to the sinuses and damming back into the antrum, such as I formerly had. These things are brought about, I believe, by the packing following a nasal operation. I have not had a single case of postoperative bleeding of any consequence which I could attribute to having left out packings, and I don't believe that I have yet experienced the disagreeable sagging of the mucous membrane which bulges over the shelving obstruction into the nostril, because that bulging mucous membrane, as far as I can determine, is almost always, if not entirely always, taken up as a consequence of retraction of the scar, up until about 10 months following the operation. We don't always get that retraction, of course, early in operation, but eventually it does occur.

I would like to have somebody express his opinions on the necessity of packing the nose in the ordinary submucous resection.

Dr. Olmstead: Do you suture your flaps?

Dr. Burritt: No, because if sometime a hematoma forms I would like to be able to get at it more easily than tearing open a sutured wound.

Dr. Charles S. McGivern (Atlantic City): The doctor from Summit opened up a very broad field in speaking of the nasal infections that sometime follow submucous resections. My main reason, in the first place, for suturing was not so much to avoid the use of packing, for it is a well known fact that the omission of packing has been practiced for a great many years. A man in Memphis, in 1914, (I forget his name) advocated it and this form of after-care has, no doubt, been used by a number of men, and I myself have tried it. It is not as satisfactory as it is to omit packing and use the suture. As to the objection that you can't get at a hematoma, if you suture, of course, that doesn't operate, because you have so much room between your sutures; and again they are easily removed.

My idea, in suturing, is that it holds the flaps in apposition and you are not nearly so apt to get a hematoma. The second thing is that I many times have a lot of tears in my flaps because I try to get out all of the obstruction, absolutely disregarding the possibility of perforation in operating on septums, paying attention to the removal of obstruction solely, taking out that regardless of what happens to the flaps. For this reason I have to do more sewing than the average man, but I believe, in the end, this gives much better results.

If I find I can't get the obstruction out without doing a Fine operation, involuntarily, I go ahead

* (Since this discussion I have had a case of infected hematoma. I feel properly humbled.—N. W. Burritt.)

and do that, because that is my idea of the indication. I may not be as skillful as a lot of men; who could, perhaps, get these out without perforation or doing a complete resection. The one thing I do know is that there are a lot of very bad septal operations done and more bad ones by far than good ones.

As to the matter of infection, you get several varieties of infection. You get an infection very frequently where you have sharp spurs in the region of the sphenoid and posterior ethmoids, because you are almost certain to tear the mucous membrane and get over with your instrument on the lateral wall of the nose in order to get the spur out, and there is a good bit of damage to the tissues in this region. This type of infection, or reaction, is entirely different from the one which follows a hematoma. It is also different from a type of infection seen very frequently in the flap itself, where you find bulging thick flaps and you open them up and there is nothing in between them. I don't know what causes that, but it occurs. I used to believe it was due to the use of injection anesthesia. Latterly I have dismissed this as a possible cause, because all my cases are anesthetized by injection and I see this type of infection rarely. Possibly it is due to the type of infectious organism present in the particular case that evidences this kind of a reaction. I haven't seen enough of them, probably a dozen in my lifetime, but when you do get them, they are very mean things to handle. Naturally, you can't do anything to avoid this type of infection nor, so far as I know, can you do anything to shorten its course. The type that follows hematomas, I think you can avoid largely by leaving out the packing and putting these sutures in.

The type which you get from disturbing the sphenoid and ethmoid region, particularly if the patient has a latent inflammation in this area, you are more likely to avoid if you don't use packing than if you do.

I see probably in a year's time 6 to 10 infections in the nose following submucous resections. Some of them are mine and some are other men's. I don't see how the sutures operate against or for that. Of course, it is a little more traumatism to put sutures through the flaps than it is to leave them out, but it is so little more traumatism that it really doesn't make any difference.

VARIOUS METHODS OF TONSILLECTOMY

CHARLES FRANKLIN ADAMS, M.D., F.A.C.S.

Trenton, New Jersey

(Read before the Section on Ophthalmology, Otology and Rhinolaryngology of the Medical Society of New Jersey, Atlantic City, June 14, 1929.)

The active growth of the tonsils is during the first 5 or 6 years of childhood. Then atrophy begins, and should be completed by the eighteenth year. Infection prevents physiologic absorption, and according to Polvogt and Crowe, of the Johns Hopkins University,

the infecting organism is the hemolytic streptococcus in 91% and the staphylococcus in 8% of instances. There is no apparent connection between clinical symptoms and the predominating type of organism found in the tonsils.

After much work and discussion, the operation for removal of the tonsils has become standardized in certain principles as well as methods. No longer are hours spent in considering the necessity for removing the capsule, or which is the proper way to control hemorrhage. For the last several years the operation has been based on the 2 fundamental principles of expression, as done by the Sluder or the La Force tonsillotomes, and the method of snaring and dissection. Perhaps I must also add the electrocoagulation method, which is now being applied to patients who are more advanced in years, and, although it violates the principle which seemed to be finally established, of removing the capsule in every case, it produces in many cases favorable results. This method is not to be confused with the old cauterization method, nor with the desiccation method under the high frequency spark.

The surgical removal of tonsils is in every way a major operation. Two serious complications are always a menace; one is hemorrhage and the other a lung abscess. Men who are doing bronchoscopic work report an alarming increase in the number of lung abscesses following tonsillectomies under general anesthesia, and also in adults operated upon under a local analgesic, and in an upright position. The patient should always recline on the table, and those under general anesthesia should be returned to the bed, to rest on the stomach with head low and face turned to one side. It is my custom to administer morphia in 50% solution of magnesia sulphate one-half hour before operation and to see that the general anesthesia is not too profound. Status lymphaticus and acid urea must always be excluded.

The factors in hemorrhage are: Hemophilia in males, and thrombopenia in females; fragments of the gland remaining; traumatism of the pillars; and Hodgkins disease. Low blood pressure is more liable than high to indicate

hemorrhage. When white cell count is as low as 3500, the polynuclear cells are also reduced, and in such cases Vincents angina is liable to complicate the tonsil operation. Three minutes is the normal bleeding time from a needle puncture of the lobe of the ear; this is more instructive than the clotting time of blood taken from a vein; which is 8-10 minutes normally. Before arranging for an operation, the family history as to bleeding tendency should be obtained.

What sometimes appears to be a general bleeding from a large surface, may be due to the tonsillar artery being pulled forward with its end lying against the side of the fossa. Gentle pressure or suction, only sufficient to find the bleeding vessel, should be employed, then grasp the bleeding vessel with forceps and ligate. The simplest method of securing the bleeding point is to pass a slip knot of braided silk, held by a long forceps, over the hemostat. The method of Leslie Davis, by which he grasps the bleeding vessel with forceps and inserts a short needle, $\frac{1}{4}$ curved and armed with No. 0 catgut, under the forceps, around the vessel and ties the ligature, is best. This ligature has the advantage of not slipping and of being in due time absorbed. An injection of 30 c.c. of a 33% solution sodium citrate into the muscles will markedly reduce the clotting time, but is by no means a substitute for ligation. Secondary hemorrhage may be prevented by treating the patient daily for a week with applications of 3% iodine in glycerin, a solution of one of the silver salts, or a 2% mercurochrome solution.

Dryness of the throat following tonsillectomy is generally due to the removal of too much of the mucosa.

After the operation, give cracked ice freely and apply an ice collar externally. Aspirin or pyramidin in 5 gr. doses relieves pain.

DISCUSSION

Dr. Samuel Skillern (Philadelphia): Dr. Adams asked me if I would come over here and say a little something about electrocoagulation. In the first place, I don't want you to get the impression that electrocoagulation is the operation of choice with me or in the Skillern clinic; it is not; it is only suitable for that type of case upon which for any reason it is impossible to perform the regular, orthodox operation. In the Skillern Clinic we use the La Force tonsillectome almost exclusively, hav-

ing found it to be about a 98 or 99% instrument and that the other 2% are those cases in which the tonsils are so bound down by scar tissue from previous partial tonsillectomy or by old abscesses that it is impossible to break the tonsil loose and push it through the fenestrated window of the La Force instrument. Why do we like the La Force method better than any of the others? Simply because I think we have tried out, by comparison, every method of tonsillectomy or tonsilotomy that has ever been devised and in our hands the La Force instrument produces the nearest to a perfect operation.

Dr. Adams speaks of bleeding. You may not believe me, but I can honestly say that I have never, personally, been recalled to the hospital to check a postoperative hemorrhage following a La Force tonsillectomy. I have gone to the other members of the staff (my brother will tell you the same thing) and questioned them, and I believe there is only one member of the staff who has ever been called back, and when I pinned him down he did not know whether it was a "dissection and snare", or a La Force operation that had been performed by a student. I had just once a postoperative bleeding that occurred 4 days after a La Force operation; the cause I could never determine.

We have found that not only in our La Force cases, but more so in our general dissections, that bleeding is generally due to a small piece of tonsil tissue left in the fossa. Just the other day, my brother was operating on a very dear friend of his a very difficult case, and there was bleeding very freely up under the anterior pillar. He said: "I have looked at this thing so long that I am seeing red. See if you can find it, Sam." I looked up under the fold, and found a little piece of tonsil tissue, not any larger than the tip end of your little finger. The superior tonsillar artery pierced the center of this tissue and prevented contraction and retraction of the cut end of the artery. I called his attention to this snag of tonsil, which he picked up and cut off with a snare, stopping the bleeding almost immediately. We never sew. I say never—we never sew following a La Force operation, and it is very seldom that we ever put in a ligature. It has gotten to be a joke. My brother will say: "Hurry up, Sam, get the ligature or it will stop before you can get to it."

Now, as to the type of case for electrocoagulation, you all have patients who respond to advice to have a tonsillectomy by saying: "No, Doctor, I have had them this long, and so I am going to take them with me to my grave." "I wouldn't go to a hospital, Doctor!" "I wouldn't take an anesthetic!" "I am not going to be laid up with a sore throat for a week or two!" "I have had these tonsils this long without their bothering me, and I am going on with them!" These are often patients with high blood pressure, endocarditis and joint lesions. You can't convince them, many of them, that their tonsils are foci of infection. They say: "How can my throat, which never bothers me, affect my big toe? Why I haven't had a sore throat for 10 years!" It is pretty hard in some cases to convince this type of individual that the tonsils contain the focus of infection.

Then, again, you find the old syphilitic and you are afraid to go in and do much cutting for fear of getting a nasty slough. Cases that are actually inoperable because of heart or kidney conditions, are the types for electrocoagulation. Dr. Adams has said that electrocoagulation must not be confused with fulguration or desiccation. Desiccation is the drying of the tissue. Fulguration is the rapid

firing of a short or long spark onto a tissue and charring it and is the least suitable, I think, of any of the electric treatments in tonsil work. Desiccation and electrocoagulation are the methods of choice. In desiccation you use the monopolar current, the needle being buried in the tissue. If you hold that needle off from a $1/32$ to $1/4$ inch and spray sparks onto the tissue, you have fulguration. If you use that same needle with the same spark but bury the needle into the tissue, you will dry that tissue and so devitalize it that it will slough or melt away; that is desiccation.

In electrocoagulation, one uses a bipolar current. You have your negative plate, a piece of tin or lead foil which is placed on the patient's back, and you have your positive pole in this needle and it is the heat generated by the electricity passing through the body and centering around the needle point that causes destruction of the tissue at the needle point. Personally, I do not like the method nearly so well as I do a La Force tonsillectomy.

Many patients have heard about electrocoagulation, and I am often greeted with: "Doctor, I want you to take my tonsils out by electricity; I understand it doesn't hurt." I say: "All right, I will do it, but if I were having my tonsils removed, I should like to have them out in one 'sitting' by taking gas or ether, so that when I come out of the anesthetic I am done with it and finished." They say: "Well, I won't go to a hospital! I won't be operated on!" The reply is: "All right, we will do it by electrocoagulation, if you insist on that method."

The electric apparatus salesman will tell you it is a painless procedure. Gentlemen, it is not! It hurts! You can't burn a person without hurting him.

My method of procedure, and that of Dr. Dillinger of Pittsburgh, is as follows: We first spray the mouth with 1% cocaine solution, and then apply 10% cocaine solution, over the tonsil; once over the base of the tongue and over the pillars; and occasionally I go up back of the posterior pillar. We do not inject, because the more fluid you put into that tonsil the greater will be the dissemination of heat, and you don't want that. You want to keep your heat right in one spot. The consequence is, you can't inject with any degree of success. In desiccation especially, you are trying to dry the tissue. If you put in more fluid, you have a lot more fluid to dry out. In coagulation; well, I don't know, but I have understood that the men who have tried it have not had very great success. I never attempt to take out the tonsils all at one sitting. One man in Philadelphia does, but I never do. I have talked to several patients who have had this done, and I wouldn't want the sore throat that they told me they had endured.

Now, then, to go back to what I was talking about, the pain of the thing. In the first place, the patient is going to tell you if you leave the needle in a little bit too long; the patient is going to shrink away. Secondly, that patient is going to have pain for 3 or 4 days following your application of electric current. The pain is not going to be so severe that he can't sleep or eat and go about daily work, but he is going to have pain, and just at the time that pain gets well he comes in for another treatment, and you induce pain all over again; that is the chief complaint of the patient. But, you have to keep that thing up from 4 to, as in 1 of my cases, 12 treatments. I never treat more than one side at a time, generally starting with the right tonsil, and then a week later the left. The following week the slough has all disap-

peared from the right tonsil, and, practically well, you go ahead and give it the second dose, which is the third time the patient has been in. You keep that up alternately, one side and then the other, until all tonsillar tissue has disappeared.

The technic of the thing you all know. I don't have to go into that, but I do tell you this—that it requires, in my opinion, just as much skill (in fact more as you get down deeper) to destroy tonsils by electrocoagulation than it does by the dissection operation. Why do I say that? Because if you touch that needle to any mucous membrane you are going to destroy it. In one of the first cases I treated, a Negro woman, I caused the uvula to swell as large as my 2 fingers by accidentally touching the needle to it when the current was on; the entire roof of the mouth was down on her tongue and I thought she was going to suffocate from the amount of edema.

The first application, you go around the tonsil, you entirely circle it; then 2 or 3 applications in the tonsil. All right, that is easy. About the third or fourth time the patient comes in, you find most of the tonsillar tissue destroyed, with a nice clean deep fossa, covered by the anterior pillar. In back of this pillar, or up under it, you find a piece of tonsil. It is this piece of tonsil that is hard to get. You have got to take that anterior pillar (I use a rubber pillar retractor or Luc forcep), and turn it practically inside out; then get back of it, to get at this last piece of tonsil.

There is another danger in electrocoagulation. I didn't see it, but I have heard of it. A certain man up in Pennsylvania was very fond of his applejack. He used to take a couple of drinks before starting with his work, as it gave him more nerve, I guess; I don't know what else. He was taking out tonsils by one treatment (one application of electrocoagulation) and one day his needle slipped and the patient gagged; as they often do, and you must cut off the current by your foot switch the minute this occurs, since gagging drives the needle in deeper and you may coagulate yourself into trouble. The patient evidently gagged, and this man kept his foot down on the switch. The needle went on through and coagulated the anterior wall of the vein. Four days later it burst; that is all there was to it. The patient died before he could even get there.

So, in electrocoagulation you have to govern your depth pretty accurately. You can't go too deep. After I have gotten what I consider most of the tonsil out by electrocoagulation, I turn to desiccation, because in those little tabs of tonsillar tissue that are left, you can bury your needle and the minute you see them turn white cut off the current. It doesn't cause anywhere near the amount of pain that electrocoagulation causes, and will destroy these tabs of tonsillar tissue just as thoroughly as electrocoagulation, leaving a clean fossa.

It was just recently that Dr. Crane brought a patient down to me and I have given that patient 3 treatments. I would like you to hear what Dr. Crane has to say about it, if Dr. Emerson will allow Dr. Crane to tell us this man's history.

Chairman Emerson: Dr. Crane, we will be very glad if you will come up here, please.

Dr. J. W. Crane (Trenton): There isn't really very much to say. I took this patient down to Dr. Skillern. We didn't consider it was advisable to do a tonsillectomy by the regular method. He has now had 3 treatments, 2 in the right fossa and 1 in the left. It seems to be working perfectly, though he still has a slough on both sides. The

right tonsil has almost completely disappeared. Both pillars are intact. The left is about half gone on 1 application. He suffered very little pain, continued his work right along, slept little the first night but a little luminal and aspirin gargle seemed to help him. That is about all the experience I have had with it.

Dr. Charles S. McGivern (Atlantic City): I am very glad that Dr. Skillern brought up the subject of electrocoagulation, because the man who is mainly responsible for the adoption of electrocoagulation for tonsils in the United States is a man I know very well. He was always an unsuccessful nose and throat man. Prior to his venture into the field of electrocoagulation, he took up diathermy at Portman's clinic in Bordeaux. I also went to Portman's clinic to learn this method. I came away from there quite satisfied that neither Portman nor anyone else that I had ever seen could take out tonsils successfully by electrocoagulation or any other electric method. Why can't they do it? They can't do it because it is frequently impossible for one to differentiate even in the dissection method of operation the difference between what we call capsule and what is tonsil. I have seen at least 25 or 30 electrocoagulated cases done by various men in the United States, and I have never yet seen a single case where the tonsil was thoroughly removed. Novak, of Chicago, was one of the first men to use this method for doing tonsillectomy. He has completely abandoned it. Why did he abandon it? He abandoned it because it is dangerous, because it doesn't fulfill the requirements and because in 99 cases out of 100 where it is used, it is not indicated, because the operation could be done better by a more orthodox method.

I don't know what anybody's else experience is with tonsils. I have used a variety of methods, and I must admit after 16 years of nose and throat work that I can't with certainty thoroughly remove tonsils by any method. I don't know whether this is due to lack of skill on my part or not, but the same thing comes up all the time; i. e., people come into your office, their work has been done by men all over the United States, men you know are prominent men, who have been doing tonsil operations for years, and yet you hardly ever see a clean tonsillar fossa. Nearly always there is a piece at the base, or the pillars are chewed up, or there is a lot of scarring. If you pull the pillar back, you find some tonsillar tissue remains. It may be I have only seen the cases that weren't properly done, but I do not understand that, because I see cases from everywhere.

I don't believe there is any 100% sure method of taking out tonsils. The Ballenger-La Force method, which I have used myself for 15 years, is good in the cases where you don't have any adhesions from quinsy or where the tonsils are not deeply buried. You can get them out fairly well that way, but you always leave a piece at the bottom. I don't quite understand the anatomy of this piece of tissue; it seems not to be all lymphoid but there are fibrous, muscular and lymphoid elements in it. This piece I always take off with the scissors, and even after doing that I very frequently have a re-attachment and a return of lymphoid tissue at the bottom of the tonsillar fossa. I don't know what more one could do. Certainly the tonsil operation is not essentially such a difficult one, if it is as easy as we are led to believe. I have come to the conclusion that it isn't an easy thing to get a tonsillar fossa clean and keep it clean. I don't know whether other nose and throat

men have similar experiences, but I know that my tonsil work is unsatisfactory. The older I get and the more I do of it, the more unsatisfactory it becomes. I have reached the point now where I don't know whether in a given case I can take out a tonsil well or not. It may be that there is an electrocoagulation operation that is successful, but I have yet to see the case.

What are you going to believe? I, myself, tried it. I know those patients had vastly more pain and more suffering and less result from their electrocoagulation than any amateur could have produced by any other method.

Latterly, we don't hear much about local anesthesia in tonsil work. I think most tonsils can be taken out under local anesthesia if general anesthesia is contraindicated or if one elects local. I haven't seen a case yet I couldn't remove with local anesthesia where the patient was worth saving at all. If they are so bad that they can't stand a local anesthetic, then they aren't going to live long anyway.

Chairman Emerson: Is there someone else who would like to speak on this subject? I am sure it hasn't all been said yet.

Relative to what Dr. McGivern has said about that piece at the base that is often left by the Sluder method, I am finally of the opinion that piece ought to be let alone. I don't think it ever gives any trouble; it never gets inflamed. You cut it off and you get a deucedly sore throat for 10 to 15 days, and a marked amount of contraction and fibrous tissue pulling down from the base of the tonsillar fossa to the tongue when the patient protrudes the tongue, extending over a period many times of months. I know men who are opposed to the use of the Sluder, which I am just as emphatically in favor of as is Dr. Skillern. They cite as their reason for this opposition the fact we don't get the tonsil all out. I contend we do and the man who does the dissection operation and cuts that out with scissors and takes it down, in my opinion, inflicts a damage that is unnecessary and harmful.

As to getting every shred of tissue, particularly in the lower pole, we all know that it is the upper hidden pole that gives the trouble, gives the tonsillitis, and gets the peritonsillar abscess and all the other various troubles. That is my feeling about it. I feel that the man who wants to get every shred of tissue out in a tonsillectomy is like the man who wants to have his mastoid look like the table or like the specimen which the doctor passed around this morning.

Dr. Charles S. McGivern (Atlantic City): Dr. Emerson, the reason I talked about that at all was because I took my wife's tonsils out with the Ballenger-La Force instrument, which I use all the time, and about 3 years afterward she had the worst case of tonsillitis I ever saw, though her tonsillar fossas looked clean. However, with this attack she had little fingers of lymphoid tissue sticking up in the fossa that had attached themselves. My own tonsils were removed by a very good operator and the other day I was advised by another nose and throat man to have them removed again. Those are the types of experiences I refer to. That is the reason why I say this thing is not the simple thing we are led to believe it is. It is much more difficult. I see so many of my own cases, children where I know I have examined the tonsils when removed, and saw that the capsule was intact, and looked between the pillars carefully and, so far as I could tell, there was no tonsillar tissue left there, and yet these children came

back in 5 or 6 years with tonsillar buds and presented a clinical tonsillitis. It makes one feel rather mean. I am sure the same thing has happened to other nose and throat men.

Dr. Samuel Skillern (Philadelphia): May I reply? Dr. McGivern, I am very sorry, but I have got to absolutely disagree with you. We have any number of cases that have perfectly clean fossas, perfectly clean, not 1 year but 10 years after the operation. That piece of tonsillar tissue at the base is the connecting link of Waldeyer's ring. I am not going to bore you with that, we all know what Waldeyer's ring is. But between the lingual tonsil and the pharyngeal tonsil, there is a little piece of connecting lymphoid tissue, and if that is left in place, Dr. Emerson, we have found that it will often hypertrophy and grow up into the tonsillar fossa and appear as a regrowth of tonsil. The consequence is, we always take it out, but we take it out with the snare. As to those little snips of tonsillar tissue Dr. McGivern speaks about, yes, they recur in, I say, about 5% of cases. We have found that those pieces of tonsillar tissue are extra-capsular tonsil. It is tonsil that is on the outer side of the capsule and no matter how carefully you may take out the tonsil, those little pieces of embryonic tonsillar tissue may be left, and if they are, they have the power to hypertrophy. They also have the power to form crypts which may later become infected.

There is one advantage that I did not speak of, in the electrocoagulation, and that is that you kill the pathologic organisms as you coagulate; it is remarkable to note the improvement. If you take a case of so-called rheumatism, it is marvellous to note the progress and lack of pain after the second or third treatment by electrocoagulation.

Dr. Elias J. Marsh (Paterson): I have something here I think might be of interest to the Section. I am sorry I was detained by business in the Budget Committee and did not get in to hear Dr. Adams' paper. It is interesting to know all operations have a history. I have 2 souvenirs of antiquity that might be interesting to look at. Here is what I take to be a model of Physick tonsillectome, about the first guillotine or tonsil instrument made, so far as I know (exhibiting instrument). It consists of a spike which pushes out. It is evidently the ancestor of the Matthieu. You push that out so, pressing it so, and you pull the tonsil out that way and then cut her off. It is evidently the ancestor of the familiar Physick.

The other is a more advanced development. I don't know the name of it; I call it a rat trap tonsillectome. It is something like one at any rate (exhibiting instrument). There is a jaw here which is spread, something like a steel trap, and it is caught and held by a powerful spring and held by a cam. As you pull this back, it releases the catch. These jaws spring together and pull the tonsil up. The spring pulls it out, and then in the same way you make a tonsillectome action. There is quite a little trick in setting it.

I can't tell you the history of these instruments, gentlemen, because I got them from the estate of Dr. Roland Cox, who was interested in things of that sort, but I thought it would be interesting to show them. If the Society sometime or other has a museum or place to keep things like that, I would be very glad to present them.

Chairman Emerson: It is very interesting to see these instruments. I remember my first tonsil operations were done with the Matthieu tonsillectome. The trouble I had was the spear didn't lift

the tonsil enough to suit me; in trying to make pressure, I always managed to spear my index finger instead of the tonsil.

Dr. Charles F. Adams (Trenton): Dr. Skillern by inference calls the electrocoagulation an unorthodox operation. I believe from today's discussion it will have to still remain in that class until further developments.

Dr. McGivern spoke of the growth at the base of the fossa which, as Dr. Skillern has already suggested, is part of Waldeyer's ring, and it is very frequently, not always, left behind by the ordinary operation, whether it be by La Force or Sluder, and if it is large enough or prominent enough at all, it should be removed, but I have found that the ambitious ones who are so particular to get every vestige of tissue that looks at all like tonsillar tissue from the fossa, and the mucous membrane as well, cause their patients to have a dry throat not infrequently, and they are thus troubled for a long time afterward. I don't think it is the removal of the balance of this tonsillar tissue, but rather too much removal of the mucosa. In my paper, I suggested that all these cases should be followed up by daily treatments of some remedy such as iodine in glycerin, or silver salts, or mercurochrome. I have had cases come to me several months afterward with granulations that looked like tonsillar tissue. Those can be easily reduced, if seen early enough, by silver or iodine preparations. I think that the after treatment of tonsillar cases is very important and that one should not be satisfied by simple removal of the tonsils.

THE DOCTOR

WILLIAM H. JAMES, M.D.,
Pennsville, New Jersey

It is said that every doctor should have a good wife, a good microscope, a steady hand, a clear conscience and a thick skin. The requirements to become a Doctor are very different today from what they were 20 or 30 years ago. Then it was not necessary to have a premedic education. There were no entrance examinations and the lectures in most cases, consisted of 2, or perhaps 3, courses. The full fees had to be paid for 2 courses only and in the third one had to pay only for matriculation.

The requirements today to enter a class A medical school are: a high school diploma; 2 years of college work, and in some schools a bachelor's degree; then 4 years in a medical school with tuition each year ranging from \$350 to \$610. The number of medical colleges in this country have been reduced from

160 to 75. After graduation 95% of the graduates serve as interns; and some colleges make such internship imperative before granting a diploma.

There are many discouragements connected with the doctor's life, not only when he first hangs out his shingle but in after years as well. There is a story of a young Harvard graduate who opened an office in Boston and one morning while walking through the Common, he met a former professor who inquired how he was getting along. The young doctor said: "Not very good, you know I have been here a month, and as yet I have not had one patient." The professor tried to encourage the young man and passed on. In about 2 weeks they met again and the professor asked about the same questions. The young man said he was doing better: "You know I had a confinement 2 or 3 nights ago and the mother and child are both doing well." At their next meeting, about 2 weeks later, the young doctor said: "Professor, you remember me telling about the confinement case. Well, the mother and child both died." "Oh, that is very discouraging," said the Professor." "But," said the young doctor, "I am not discouraged at all, for I still hope to save the old man".

One of the greatest problems before the medical profession now, is to get young doctors to practice in the rural districts; so much so that the Albany Medical College, the Medical Department of Union University has adopted a special course for students who contemplate settling in rural districts after graduation.

A medical college dean who has done considerable work in supplying students and graduates for the rural districts has this to say: "One of the important reasons why young graduates do not want to go to the country and why physicians already practicing do not go there is the isolation and the lack of contact with their brother practitioners and of opportunities for extension. It is vastly more important to keep the man who is already there contented and happy, an object lesson to the young practitioners. One of the things we are doing to accomplish this

end, is to introduce the recent graduate, or the young man who is soon to graduate to a country practice. Part of our senior course provides that each senior student must have 4 weeks of service in the country under a chosen practitioner. Both are enthusiastic. The student is glad to get out and see things as they are, and the kind of practitioner we have selected has been glad of the company of the student who comes fresh from college. Many of them have said to me, 'Why they are teaching me new tricks—they are telling me about things that I knew nothing about'."

Another reason why the young doctors do not wish to take up a practice in the country is that as soon as they graduate they have a desire to become specialists and take 1 or 2 years of postgraduate work and then launch out as full-fledged specialists, when as a matter of fact each should have 5 to 10 years of general practice before becoming a specialist.

The doctor, like any other laborer, is worthy of his hire. Upon his preliminary training at college and in the professional school, he has expended thousands of dollars, and on this investment he is entitled to just return, besides being entitled to proper remuneration for his actual services.

THE COUNTRY DOCTOR

Day in, day out, night out, night in,
Where snow is thick and fees are thin,
He hustles with his cheery grin

To fight with ills.

The drives are long, the nights are cold,
He suffers hardships left untold,
To call upon some mother old

Across the hills.

Little he says about his pay,
Often he gives his skill away,
And though he's getting bent and gray
He has no wealth.

His life has been an endless trial,
His motto has been self-denial;
Freely he gives from every vial
For some one's health.

The gallant soldier goes away
While fife and drum and bugle play,

Bravely to conquer or to slay—

That is his part.

The country doctor rides alone,

Through rugged roads o'er stick and stone

To heal men, not to make them moan;

God bless his heart!

THE BUSINESS SIDE OF THE PRACTICE OF MEDICINE

ALFRED F. VAN HORN, M.D.,

Plainfield, N. J.

At a meeting of our county society early in the year, one of our younger members requested that we have a discussion of the business of practicing medicine. I have therefore decided to take the business side of the practice of medicine for the subject of my remarks this evening.

To the man who has a stenographer and bookkeeper I have no advice to give, for he has solved his problem long ago. But to the man who is just beginning his professional career I will give some general advice, based on the methods which I have worked out in my own office; realizing, however, that my ways will not suit every man and that each one will be obliged to suit his methods to his own particular needs.

My first point is: Be sure to keep accurate records, both historic and financial, of all your work. You have been thoroughly instructed in making case histories, while serving your internship, so I will not burden you with that side of our subject. Each of you will have your own preference as to the type of financial records you shall keep. Personally, I prefer the loose-leaf ledger. After you have decided what you will use, see to it that all of your charges and credits are recorded for the day before you retire at night; by doing this you will make your entries while the matter is fresh in your mind, and you will also be in a position to give any patient a statement of his account at any time that he may ask for it; for you will have an occasional patient who will be ready to pay his bill when

you are through treating him, but who, if your accounts are not fully posted, so that you can not render an immediate bill, may delay his payment for some time. In my experience I have found that it pays to be ready to take the money when it is offered. I have also found that bills are more promptly paid if one makes it his business to send out his statements at the end of each month, for if this method is not adopted the doctor's bill will be very soon forgotten, and the patient, instead of swearing *by* him, will swear *at* him.

There have been many methods proposed for stimulating slow-paying debtors into paying their bills, but there is no universal method that will always bring results. My own method, after exhausting other ways, is to send a registered letter, with return receipt requested, stating that if the bill is not paid by a certain specified date it will be placed in other hands for collection. It has been my experience that this brings results in about 50% of cases. A word of caution is necessary here: in writing demands for payment be very careful that you do not state your personal opinion of a person who neglects to pay his bills for a year or so after it is due, for, though the opinion may be forwarded in a sealed envelope, your Uncle Sam forbids the sending of any derogatory statements through the mail, and the fine for this offense is \$5000. A simple demand for the payment of an account cannot be considered slanderous, and, therefore, it is permissible to send by mail.

I find it very convenient to have a "cash drawer" in which there is placed \$20 in change every morning; this enables one to make change readily when cash-paying patients are in the office.

In order to make out your income tax returns speedily and without much difficulty it is wise to have a record book in which you can note the amount of work done and the receipts for the day at the close of each day's work. This also enables you to compare from year to year the work done and the income from your practice; if the latter is increasing it is a source of satisfaction to know it, and if it is decreasing it is time to sit down with yourself and try to discover in what way you

are accountable for this decrease. You might put to yourself questions about as follows: "Am I getting into a rut and not doing satisfactory work? Am I taking too many days off? Am I neglecting my office work?" In my opinion, the neglect of proper attention to office work is one of the greatest sources of loss of practice; the people who come to our offices are just as much entitled to a careful, thorough examination as those seen in their beds at home or in the hospitals, for these patients have, or think they have, some condition that looks very big to them, and it depends very greatly on your care whether they stay with the medical profession or drift into the hands of some cultist who will give them the attention that they desire.

Having briefly and perhaps poorly given advice as to the earning and collecting of our fees, the next question is how to conserve and invest our surplus income, for, as someone said many years ago: "A fool can make money, but it takes a very wise man to keep it."

To the speculator in the stock market I cannot give any advice, for he is wiser than I and would not pay any attention to anything that I might say. But, for the young man who finds himself with one or more thousands of dollars to invest, there are several kinds of investment that are safe and which will return a fair income. Among these are high grade bonds, preferred stocks, first mortgages on real estate, guaranteed bonds in title and mortgage companies, government bonds, saving accounts in banks and trust companies. The last is a very good means for saving small sums until enough has been accumulated to buy some of the other securities requiring larger amounts; it is also a way in which one can carry ready money for financing emergencies that may arise, such as prolonged sickness or death.

Life insurance is one of the most essential forms of investment, for if policies are taken when the insured is of early age the premiums are low and the policies are paid off before advancing years make the payment of premiums a burden. The best feature of this type of investment is that it protects our depend-

ents and gives them ready money to help them carry on if we are called away. In advising life insurance, I do not think that it is always well to listen to the importunities of agents to take on more insurance than we can comfortably carry, for after we have provided a reasonable amount of protection for dependents it is useless for us to carry an unnecessary load.

Other forms of insurance, such as accident, automobile liability, physicians' and surgeons' liability, and fire insurance should not be neglected.

In order that you may be enabled to make out your income tax returns without the expenditure of a lot of time and labor, it is essential to keep accurate records of all your income and expenses. Your income derived from practice is known as *earned*, and that from investments as *unearned* income. The latter is classified as follows: Dividends from stocks. Interest on bonds in which the tax is paid at the source. Interest upon which the payee pays the tax, such as interest from mortgages, bank accounts, and bonds of foreign countries.

Expenses that are deductible are: maintenance of office, contributions to charitable and educational organizations, payments for dues to and expenses incurred in attending medical societies, and upkeep of automobile for professional use.

I hope that the discussion of this fragmentary paper will bring out many more points than I have been able to present.

In closing, I cannot give any better advice than that given by the past-master giver of good advice, Benjamin Franklin:

"At this time when the general complaint is that money is so scarce, it must be an act of kindness to instruct the moneyless how they can reinforce their money-banks. I will acquaint you all with the true secret of money catching, the certain way to fill their purses, and how to keep them always full. Two simple rules, well observed, will do the business. First, let honesty and industry be thy constant companions. Second, spend one cent less every day than thy clear gain. Then shall thy money-bags soon begin to thrive, thy credi-

tors will never insult thee nor want oppress, nor hunger bite thee, nor nakedness freeze thee, the whole hemisphere will shine brighter and pleasure spring up in every corner of thy heart. Now embrace these rules and be happy."

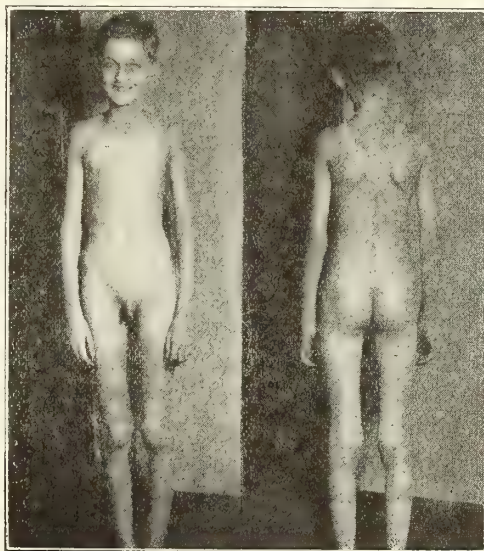
THIN WELL CHILDREN

CHARLES GILMORE KERLEY, M.D.,
New York City

The fact that a child is thin, underweight for height from 10-20 lb. or more does not necessarily mean that he is ill and suffering from disease. Among my office clientèle a great many children apply because of this type of malnutrition. Every child who comes to us is given a complete physical examination, regardless of the complaint. This includes height and weight, blood and urine, heart and lungs, ears and throat. The condition of the lower extremities and posture is passed upon and when the case calls for it, x-ray, blood chemistry, gastric analysis and stomach emptying time are covered in the examination. By a process of elimination we thus determine the dependence of the thin, underweight child upon disease as a cause of the emaciation.

It is with this type of child, with no definite ailment, that this discussion has to deal and we classify them as *thin well children*. The age of these patients range from 6 to 12 years and they are about evenly divided as to sex. Almost always they represent families in which thinness, underweight for height, is the rule, and further they usually come from neurotic, emotional, over-active stock and the child is in most instances, not always, over-height 2-4 in. for age. There is no apparent adipose (Fig. 1 and 2); the fat pads of the cheeks, breasts, belly and buttocks are wanting. The muscles are thin, soft and stringy. Posture is often faulty, the shoulders sag forward narrowing the chest which is flat, the abdomen is unusually prominent, and the sway-back completes the picture. The histories of these patients are very similar;

the child lacks endurance, is easily tired, the school work is faulty. The patient is easily aroused in his emotional reactions, difficult in his home and school contacts, there is a tendency to be tearful, and tantrums occur with slight provocation. In most of these children there is the additional complaint of capricious appetite. Many such patients are referred by physicians and all have been treated elsewhere, perhaps over a considerable period of time. They have been given so-called tonics, cod-liver oil, yeast, iron, arsenic and various proprietary health restorers. Flag-



E. L.—Age, 12 years; weight, 68 lb.; height, 60 in.
November 17, 1927.

rant dietetic errors are unusual and the bowel function has had proper consideration.

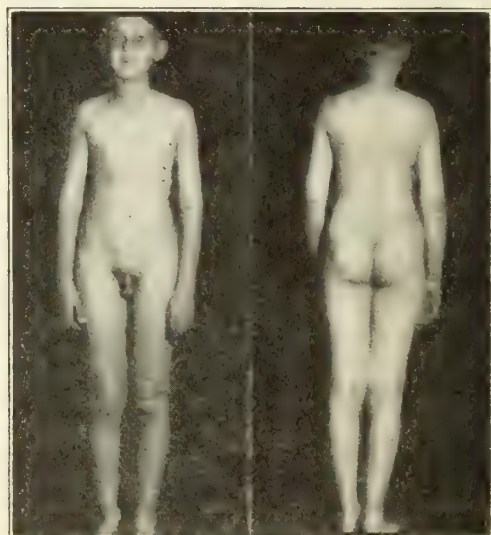
Why then the thin, well child? What is the explanation of the condition? The answer is not difficult; they are in an habitual imbalance between food intake and energy expended. The fundamental error is that the patient is not supplied with, or is not able to utilize, a sufficiently high calorie diet to furnish the energy demand of physical growth and excessive habit activity. All thin, well children may be made to gain in weight providing we reduce the energy output, increase the food intake and remove any irritant factor in the environment that may produce adverse mental reactions, such as a domineering father, an unsympathetic teacher or nurse, or

an uncongenial teasing older brother or sister. It is safe to say that an habitually unhappy child will not thrive.

Management. The first step is to reduce the child's activities 25 to 50%. This may be done in most cases, not in all, with the continuation of school attendance. We cut down the energy output by making Saturdays, Sundays and holidays rest days—on these days the patient remains in bed until 10 a. m., with breakfast in bed at 8 a. m. From 10 to 1 o'clock there are the usual child activities. At 1 p. m. the mid-day meal is served; after which the patient rests in the recumbent position until 3 p. m., when the activities of the afternoon, but never of a strenuous nature, begin. Six o'clock is the usual hour for the evening meal. At 7.30 p. m. the patient is put to bed in a room of which he is the sole occupant. On school days, the same rule is followed for the retiring period. Such a plan will permit in most cases of the usual school attendance. In those who do not respond by a satisfactory gain in weight, school is temporarily discontinued and the morning and afternoon rest plan is the daily routine. The to-bed hour is never later than 8 p. m. In the past, I have attempted many different feeding plans, such as allotting portions at the different meals but "so much of this" and "so much of that" has never succeeded, in my hands, and we now give every patient a type-written feeding schedule comprising a wide range of permissible foods for the different meals at a definite hour each day. The desirability of urging whole-grain cereal and leafy vegetables is emphasized, and 1 or 2 green vegetables in addition to potato taken daily is insisted upon. Fruits comprise an important part of the feeding plan; cod-liver oil is given only when there is a particularly good appetite. They are told to use butter plentifully, to use cream on the cereal, with sugar also plentifully, and the milk given is always the top 20 oz. from the 1 quart bottle which contains about 6% of fat. Candy is given as a part of the dessert, and ice-cream is permitted 2 or 3 times a week. The use of bananas is urged, mixed with the cereals or given otherwise, and when the appetite is

keen they are given with milk in the mid-afternoon. To those children who dislike milk it is given cooked with the cereal, and milk puddings are urged but never a command as to so much of this or that. Apart from these suggestions, the nurse or mother is told to use her judgment and to consider the child's desires in selection of the different food substances in the meal groupings.

We have been rather surprised that neither ketosis nor acid intoxication has developed in children fed on the high fat diet; the considerable amount of sugar given probably accounts for the absence of disturbances of this kind. Also, in those who fall off in appetite or show a coated tongue, we give about 30



E. L.—Age, 13 years; weight, 102½ lb.; height, 63½ in. November 17, 1928.

gr. of bicarbonate of soda daily. In resisting cases, patients who do not gain, we supply additional carbohydrate by using a 5% glucose solution, 8 oz. or more flavored with orange juice, as a mid-afternoon drink. Where there has been constipation over a considerable period of time the high fat and sugar content in the diet satisfactorily relieves the condition, but in case a free evacuation does not occur daily sufficient aromatic cascara sagrada is given after each meal to insure the desired result.

The photographs (Fig. 3 and 4) represent one year's effort along the above lines, and

were taken to the day one year apart. A gain of 34 lb. 12 oz. was the result in this case; of course, an unusual gain. We can always be sure, however, of a gain of 10 to 20 lb. in a year, depending upon the age of the child, his inherited tendencies, and the thoroughness with which the plan is carried out.

RESULTS OF IMMUNIZATION WITH DIPHTHERIA TOXOIDS AS COM- PARED WITH TOXIN-ANTI- TOXIN

H. L. FUERSTMAN, M.D.,

Department of Health Education and Service,
Board of Education,

Newark, N. J.

According to authentic reports and personal experience, immunity to diphtheria from 3 doses of toxin-antitoxin, Park formula, is found to be established in about 90% of the cases only after a period of 3-4 months, but the conferred protection, instead of being of temporary duration as is that of antitoxin, is sustained for years. Of 439 susceptible children immunized 5 years ago and recently re-tested, 402 children, or 91.5% were found Schick negative, and practically all of those who remained susceptible showed a lesser degree of Schick reaction upon re-test. As a general rule it may, therefore, be safely stated that about 90% of susceptible children can be immunized with 3 doses of toxin-antitoxin to the point of a negative Schick test, and those incompletely immunized, with few exceptions, are rendered less susceptible as evidenced by a lesser degree of reaction upon re-test.

Immunization of adults, however, as has been our experience with teachers, has not proved entirely satisfactory, since at least 50% failed to become negative to the Schick test, besides having frequently suffered from pronounced local or constitutional reactions, even with use of the Park formula. Notwithstanding these undesirable after-effects, 5 doses have been recommended for adults, with the result that 80% can be immunized to the

point of a negative Schick test under such treatment.

Despite the infinitesimal amount of horse serum present in these mixtures, and in spite of contrary authoritative opinions as to its ability to produce protein sensitization, other serums, such as goat or sheep, have been suggested and are quickly supplanting the horse serum. As the result of the wide application of diphtheria toxin-antitoxin mixtures of the horse serum variety for the past 8-10 years, we are advised, in the light of our present day scientific knowledge, to guard against possible anaphylaxis from subsequent injections of therapeutic antitoxins, by administering a preliminary injection of 0.5 c.c. or even smaller amounts of serums as a desensitizing dose, in order to induce a tolerance to the serum. Fractional doses have been recommended and especially advised in the intravenous method of injection, and in individuals known to be hypersensitive. Presently, every possibility to serum sensitization can be obviated by substitution of the goat or sheep product of toxin-antitoxin, both of which are available without difficulty and produce equally good results in immunization.

Although toxin-antitoxin immunization has passed its experimental stage, and requires no further proof as to its efficacy, yet, according to Ramon, of the Pasteur Institute of Paris, neither the German nor the modified American method, for producing active immunity against diphtheria with toxin-antitoxin, was adopted in France as a general procedure. The chief objection was, besides the horse serum content (the only serum available at that time), the technical difficulty in obtaining an accurate working formula. It was observed by Ramon, in 1924, that diphtheria toxin modified by exposure to heat and the chemical action of formaldehyde, instead of being neutralized with antitoxin, retained its immunizing or antigenic power. This product, known as *toxoid* or *anatoxin*, is practically nontoxic, and free from serum proteins, since it is diluted with normal salt solution instead of antitoxin. It has been widely employed in France, and the immunization results obtained are claimed to be similar to those of toxin-anti-

toxin mixtures. The chief advantages of the toxoid or anatoxin are its ability to develop prompt protection as well as to eliminate almost entirely undesirable local reactions in young children; it provides, likewise, a method by which the danger of sensitization to horse serum may be avoided. In this country, Larson has partly succeeded in detoxifying diphtheria and scarlet toxins, with sodium ricinolate, a method which apparently failed to produce immunity in sufficient numbers.

To ascertain accurately the efficiency as well as the speed of developing immunity with toxoids, a series of 125 susceptible children (positive Schick reactors) all 4-6 years of age, was immunized with 2 doses of toxoid 1 c.c. each, at an interval of 3 weeks. This was contrasted with a similar series receiving 3 injections of toxin-antitoxin, 1 c.c. each, at weekly intervals. Re-testing of both series of cases was performed within 6 weeks after the first injections, and the comparative results, combined in the subjoined tabular statement, are as follows:

Toxin-Antitoxin 3 doses (goat serum)	Toxoids 2 doses (Ramon)
Number treated	
and re-tested . . . 125	125
Number positive .. 18	8
Per cent positive... 14.4	6.6
Number negative .. 107	117
Per cent negative .. 85.6	93.4

From the figures presented, it is readily observed that the results with toxoid are better than with toxin-antitoxin, and that in the majority of cases, the immunity with toxin-antitoxin is as prompt as with toxoid. Local toxoid reactions, in our group of young children, were so seldom observed, that the test came to be entirely omitted; this is a dilution of toxoid 1:20, to determine the susceptibility to toxoid proteins, more commonly observed in older children and adults. Notwithstanding the fact that both preparations produce almost equally efficient and rapid results, they are useless for immediate effect, which can be produced only by diphtheria antitoxin. The claim that active immunity with toxoid re-

sults in about $\frac{1}{4}$ the time required by toxin-antitoxin, is somewhat exaggerated and unwarranted as shown by the figures above.

Conclusions drawn from the foregoing, would seem to indicate that toxoid is efficient as an immunizing agent, and possesses many decided advantages. Since, however, toxin-antitoxin mixtures without horse serum are now available, and since experience has demonstrated the immunity resulting therefrom lasts for years, it is not likely that in this country, unlike the situation in England or Canada, toxoid will supplant toxin-antitoxin until the dosage, intervals, and permanency of the immunity resulting from the use of toxoid, is definitely established.

The use of toxin-antitoxin or toxoid should be advocated in all children during the most susceptible period, which is between 1 and 5 years of age. In 1928, in our own city, the diphtheria cases numbered 1362 with 95 deaths; 64 of which (67.3%) occurred in children under 5 years of age. Newark has experienced a high death rate from diphtheria in the past 2 years, particularly among pre-school children, not one of whom had been protected by immunization; it is reported by the Health Department that not a single death occurred among immunized children. Complete eradication of this disease, the objective of diphtheria prevention, is, therefore, far-reaching in importance, and depends largely upon: (1) immunization of the pre-school child, who can be reached by none better than the private physician; (2) compulsory immunization of young children upon admission to school, which our laws do not permit. Practically every child in these groups is highly susceptible but secures immunity very readily. These can be immunized without the preliminary Schick test, and without unpleasant after-effects.

In clinics for immunization of pre-school children, as well as in private practice, the use of toxoid will be found invaluable, since only 2 doses are required to produce successful immunity with little or no reaction. This preparation has been accepted by the Council of Pharmacy and Chemistry, and endorsed by such authorities as Park, Kolmer and the

Dicks. In fact, there need be no more hesitancy in the use of toxoid than there would be in the use of toxin-antitoxin mixtures of goat or sheep serum. Its advantage, from the standpoint of the parent, should make it the choice in pre-school immunization. The absence of a reaction with toxoid is of further decided advantage, since fevers and rashes have been improperly laid, by parents and even physicians, to the mixtures, on account of the local reaction which they produce.

That immunization is effective in reducing the diphtheria prevalence, has been demonstrated by the success achieved in many of our cities; of 159,802 children in Detroit who received 3 doses of toxin-antitoxin, 154 cases of diphtheria developed, approximately 1 per 1000, or 1/10%; among 121,543 nonimmunized children, 1183 cases developed, approximately 10 per 1000, or 1%. Notwithstanding the fact that this disease can be controlled by active diphtheria immunization there has been a rather wide-spread increase of diphtheria cases.

Diphtheria *can* be prevented by toxin-antitoxin, or toxoid, each of which has been proved safe and efficient; but unless they receive universal application, and unless active immunization is energetically carried out in early childhood, there is little likelihood that its prevalence and mortality will be completely controlled and the disease eradicated.

RHEUMATIC HEADACHE

H. W. HAIGHT, M.D.,
New Brunswick, N. J.

Prior to his experience in Central European Hospitals, the writer had never heard of rheumatic headache. Osler mentions it obscurely and says it may be like migraine and just as severe. Perhaps we may best understand by studying a typical case.

E. L., a physician aged 40, Dean of a School of Science, had several attacks of em-

pyema of the antrum during the spring and summer of 1928. In September, he began to have pains in the back of the neck, both sides, and the right shoulder. He could feel small lumps in the neck along the course of the fascia lata in both legs; in the latter region for about 10 years—ever since onset of the antrum trouble. These lumps became slightly painful. Estimated that the antrum had been punctured 50 times. During the past year he had been greatly distressed by headaches over the entire head. The symptoms did not clear up as the antrum cleared.

The family history showed 2 uncles and 1 aunt with undefined rheumatism. Nothing else. The doctor had an appendectomy at age of 21; tonsillectomy, in 1927. X-ray pictures showed no dental disease. He was subject to asthma, which was brought on by chicken feathers or excess of dust.

The examining physician found about a dozen readily palpable, slightly tender, flat masses, the size of a quarter to a half dollar in the fascial sheaths, not at the sites of lymph-glands. Numerous lymph-glands were palpable in both sides of the back of the neck. As one palpated the muscles of the back of the neck, the left side seemed thicker and harder, and at the point of maximum density, a knotty area about the size of a silver dollar, high up near the skull on the right side, was the point of maximum pain. The right shoulder moved with a very good degree of freedom, and no swelling could be detected, but there was a painful area corresponding to the right platysma. Near the coccyx was a scar where a lypoma had been removed. The nose and throat were normal except for scars of tonsil tissue and above the right middle turbinate. Save for a slight abdominal ptosis and slight adiposity, the rest of the physical examination was negative.

The patient was given radium mud packs of a strength equal to 200 trillionths pure radium for 20 minutes at a time for 20 days. At the end of this time the symptoms were about 50% relieved in the neck and completely relieved over the platysma; the legs remaining the same. The headaches were

slightly relieved. During this treatment the patient was at work most of the time.

Discussion. According to our American teachings and trend of thought, it would scarcely occur to one to diagnose this case as "muscular rheumatism". Perhaps, one would say that he had toxic absorption from his sinus. As a matter of fact, the pathologic condition is probably a low grade inflammation of the lymph-glands of the neck and the tendon sheaths of those muscles. What the nature of the material in the deposits is, the writer does not know. Never-the-less, this post infectious condition is the sort of thing the laymen call "muscular rheumatism". In the Rheumatic Hospitals abroad, the writer was surprised to find that this sort of muscular rheumatism was a very common cause of the distressing headaches here mentioned. In one of these cases the headaches were so bad that the patient was driven to one of the Rheumatic Hospitals in Czecho-Slovakia. As soon as Dr. Schmitt saw his patient he remarked: "This type of muscular rheumatism, with thickening of the tendon sheaths in the back of the neck and severe headaches, is seldom recognized, but it is very common. In the next month you will see all of these swellings disappear and the headaches will go with the swellings."

Treatment. For 2 weeks the patient was given radium mud packs of 200 trillionths strength, at 100° for 15 minutes. This was followed by a tub bath at 100° for 15 minutes, and this by a dry pack for 15 minutes. These treatments were given in the morning. In the afternoon the patient had manual massage for 15 minutes. At first the massage was gentle, but it became very strenuous. In 2 weeks the palpable masses had entirely disappeared from the necks and legs, but sore spots persisted in the neck. The patient had lost about 10 lb. At the end of 2 weeks there was substituted for the tub bath, a 15 minute period in a combined radium mud and radium water bath, of 400 trillionths strength, at 110°. In 2 weeks more the neck was entirely free

of symptoms; the headache had entirely disappeared; the color of the patient and general appearance had greatly improved, and the patient had lost 30 lb. which he could well afford to lose. This improvement was made despite the fact that the patient's old asthma was lighted up by feather beds in use in that country, and by the dust; during this period he had 5 or 6 bad attacks of asthma. At the end of the fourth week the patient was to take 3 more treatments. As he was dressing for breakfast, he became very pale, very weak dizzy and fainted. All that day he remained in bed feeling very weak and nervous. The pains in the neck and legs, and the headaches were again noticed. No doubt this was due to getting a little too much radium, because the condition completely cleared up as soon as the radium baths were discontinued. It shows how easily the dose may be raised too high. The case also emphasized the need of an exclusive treatment period, as the first treatment was not satisfactory.

At this date, 6 months following treatment, there has been no return of the symptoms due to the antrum, the rheumatism or the radium. In other words, the patient has been perfectly well. Schmitt in his articles published abroad states that this is a typical case and result. He believes the headaches are due to a toxic absorption from the glands and muscles, and thus accounts for success of the treatment.

REMARKS

- (1) Do we examine the muscles as carefully as we ought to?
- (2) Here is a type of headache which produces great distress, and which is remediable. Is it often overlooked?
- (3) Do we puncture the antrum too freely? Menthol epinephrin and a little patience will often open the orifice.
- (4) Do we pay enough attention to clearing up the postinfectious absorptions?
- (5) The low potency radium treatment is very effective in "muscular rheumatism".

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PUBLICATION COMMITTEE

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:
All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

THE PRESIDENT'S NEW YEAR GREETINGS

Commencement of a new year is recognized by all as an appropriate time to take an account of stock; to review events of the passing year, and to plan for the coming one; to strengthen or renew old vows, and to fortify our weak spots by the pronouncement of new resolutions. The quiet peacefulness of the Christmas season has given us opportunity to consider what has been accomplished and what remains to be done in our sphere of action. As individuals, we have each our own peculiar problems; as members of the Medical Society of New Jersey, and of that great profession which is represented by worthy men in all parts of the world, we have some problems common to all. It is among these last that we have sought a topic for this message, and it seems to us there is nothing more deserving of consideration at the moment than the question of professional ethics.

In the form of New Year Resolutions, what better can we do this January than to renew allegiance to the physician's Code of Ethics? How can we better exemplify our approval of and satisfaction in the wonderful achievements of scientific medicine, or testify to our faith in the everlasting quality of those principles that have served so well as guides to our predecessors and that constitute a beacon of light for us today? Let us, then,

renew our vows, declare afresh our adherence to the code and our intention to practice in such manner that no man can justly criticize our acts or motives. In the simple renewed pronouncement of that resolve we shall gain strength that will carry us a long way toward attainment of the objective.

What does the code require of us? Someone has said that, after all, when reduced to simpler terms, the code states what should be the "conduct of a gentleman". That is a true as well as a succinct statement. It might equally well be said that it embraces the "golden rule", to do unto others as you would have them do unto you. We believe that there is, however, something more to the code, and to our daily application of its tenets, than a mere condensation of the rules of decency. There is, more or less hidden from view—in, under or behind those conduct rules—a power far greater than the written words imply; a force that we conceive of as best expressed in the word *idealism*.

Ideals! That is what the ethical code stands for. Idealism! That is the great driving power that is embodied in our profession's code; that has put the true physician in the forefront of civilization's advance guard; that today impels us to work steadily and constantly for the benefit of mankind. It is faith in ideals, adherence to idealism, by a host of medical practitioners that has given us pride

in the work of the *physician* and put honor in the title *doctor*.

As a class, men who elect to become physicians are probably neither better nor worse than other men. But, there is something ennobling about the practice of the healing art, something that lifts the practitioner above the average of other men—if he follows the best traditions of his calling. That, we believe, is universally granted. That there should be any who fail to measure up to standard is less surprising than regrettable. We are always sorry to hear that any member of the profession has violated the ideals expressed in our code; sorry for him; sorry for ourselves, because a wrongful act performed by any member of our group reflects necessarily upon the entire group. Having joined an honorable priesthood, it is up to each of us to observe strictly the laws of that body, if for no better reason than that we stand or fall collectively.

The Medical Society of New Jersey, over which I have the honor temporarily to preside, has a highly honorable record of years and of deeds. As ever, we are today, as members of that organization, working for the best interests of humanity in general; for the prevention of disease and the healing of the sick; for protection of the public against the evils of superstition and quackery. Our motives will sometimes be misunderstood; that is inevitable, for even Christ did not escape misunderstanding and calumny. To avoid that as far as possible, and in satisfaction of our own self-esteem, let us each sedulously refrain from any acts that might reflect discredit upon our noble profession; let us do nothing that will afford a possible critic the excuse to impute to us improper motives—especially the motive of working for our own personal aggrandizement or financial gain.

ANDREW F. MCBRIDE

POSTGRADUATE COURSES

Rutgers University and the state society committee on postgraduate instruction permit us to make special announcement elsewhere in this Journal concerning plans for University Extension work to be offered to physi-

cians through our component county medical societies. Specific details of the courses to be offered are not yet quite completed but the February Journal will contain such information; and each county society will be communicated with directly and officially by Professor Chaffee, of Rutgers University, with the object of securing subscribers to such courses. For several years the American Medical Association and many of the state medical societies have been wrestling with this problem of making postgraduate study available to physicians practicing in regions remote from medical colleges, but none of the plans previously submitted has seemed applicable to the situation in New Jersey. The proposition now to be presented to our members is a "home grown" idea which we trust will prove suitable to our needs. The earnest work of our own committee and the whole-hearted support of Rutgers have resulted in preparation of a plan than can be indefinitely expanded if it proves satisfactory. Please give it careful consideration and help to promote this effort to develop something of benefit to those of our members who need or desire opportunity to keep up their studies without leaving home and without great expense.

WHAT IS IN THIS NUMBER

Occasionally we have called attention to the contents of an issue of the Journal because of some striking feature presented. This number contains so many striking features that might be justifiably brought to your attention that we would be excusable if we asked you to read it in its entirety. That would probably not, however, serve the purpose we have in mind. So, let us mention a few of our wares offered in the January Journal for your consideration.

In the first place, observe the number and character of the "original articles". This group of papers constitutes the largest number we have ever published in any one month, and covers a wide range of topics. Pediatrics is favored beyond any other single branch of medicine, and rhinolaryngology stands next, but general medicine and surgery are by no

means neglected. The 2 articles dealing with toxin-antitoxin and toxoid deserve to be considered critically and comparatively by those who are interested in public health work. The latest discovery in the treatment of genito-urinary infections is presented with a most encouraging report for those who have to deal with stubborn, chronic diseases of the urinary tract. Simplification of a submucous nasal septum resection, and the illuminating discussion of tonsillectomies, will be of interest to family physicians as well as to specialists, because these nose and throat operations have come to have such an important relationship to the cure of systemic disturbances arising from focal infections. Getting away from the strictly scientific subjects, we find 2 interesting papers bearing upon the personal problems of the practicing physician; Drs. James and Van Horn have given us a welcome bit of variety in our medical reading. Finally, one of the very best articles that it has been our pleasure to publish is Lathrope's account of the foundation of this state society; a document of the greatest historic value, and one that should be read by every member if only because it will make him feel more proud of his membership in this organization.

Jumping over the special departments of Ethics, Economics, Esthetics, Collateral Reading and Lighthouse Observations with the mere statement that each contains matter of interest and of value according to your likes or needs, let us call attention particularly to Current Events because there you will find one of the most interesting discussions the Welfare Committee has ever recorded. Much light is thrown on the purposes and the state of mind of those who annually assail the standards set by the New Jersey Medical Practice Act. Try to get the point of view of a lawyer and legislator who would tear down all standards, and impair if not destroy, all safeguards of public health, and set up special legislation to favor a personal friend. It matters not to him that several hundred ignorant or incompetent would-be practitioners of medicine may take advantage of his proposed special legislation; he will be satisfied if his personal friend is by law converted into

a licensed practitioner of medicine. Not the least curious feature of this lawyer's reasoning is found in the fact that he asks for this special legislation in behalf of an individual who admits that he has been for 10 years violating the existing laws—indeed, he seems to ask this favor as a special reward for that disregard of existing law. Incidentally, our legal friend does not claim that the present law is a bad one in any respect; he would even have it made more stringent as regards candidates in general for medical licensure, provided that his pet be first granted a physician's license through temporary suspension of the existing law. Legal enactments may be so bad or so inappropriate that the majority of the people will not or cannot obey them, and then revision or rescinding becomes necessary. But it is a novel proposition to modify a law so as to fit a single individual who finds it unsuitable to his taste. Read this report and get a clearer view than you have had, perhaps, of what we are up against whenever the General Assembly gets into session.

These are but a few of the interesting and important items in this number of the Journal. Look it over carefully and see if it does not contain a number of other features of value to you.

PUBLIC SCHOOL PHYSICIANS

In this number of the Journal, we are establishing another special department. We were somewhat surprised to learn during the past year how many of our members are engaged in looking after the health of school children. The recently appointed Medical Director of the State Department of Public Instruction informed us that there are nearly 500 physicians on the state list of school inspectors, and when he supplied us with a list of names to check against our membership we discovered that more than 75% of them are members of this state medical society.

We had previously become aware of the fact that there are many questions concerning the relation of physicians to school medical work that need serious consideration by the organized profession, and that there seemed

to be no clearing house for such problems; or, it might be better stated that there has been no recognized method for bringing these questions before the proper clearing house—the medical society. The State Board of Education has, on several occasions, shown a desire to work with the medical society toward the solution of medical problems arising in school management, and the new medical director promises to be a good liaison officer.

We have offered Dr. Ireland space in the Journal to set forth the aims and objects of the Board of Education with reference to health problems of the schools, and to carry on a discussion of the more pressing problems, the solution of which depends in some measure upon securing the aid of our members. It may require some months to get over the preliminaries and have this develop into a useful department but we trust you will keep an eye upon it and participate in the discussion of questions there presented.

It has been suggested, too, that some of these school problems ought to be discussed at a special session of the state medical society during its annual convention, or that a special meeting be arranged for those of our members who are more or less actively engaged in school work. That is a matter for consideration by the Committee on Program and Arrangements.

EXTRA COPIES OF CONSTITUTION BY-LAWS

The state society Secretary, Dr. Morrison, desires us to state that somewhere between 60 and 80 copies of the printed booklet—The New Constitution and By-Laws of the Medical Society of New Jersey—were returned to his office because of mistaken addresses or loss of the address covers resulting from the poor quality of mucilage on such wrappers. He has no means of knowing who failed to receive the booklet because of such accidents and therefore desires it made known that any member who has not received a copy can now secure one by making application to Dr. J. Bennett Morrison, 66 Milford Avenue, Newark, New Jersey.

REQUIEM

Old age, while often attended with many blessings, is also inevitably associated with some sorrow and disappointments and one of the chiefest of these is the witnessing of the passing of so many of one's old friends. Can one ever truthfully say that a life work has been completed? The writer thinks not.

If the brain is still active, and interest in life affairs continues, even an enfeebled body cannot entirely cause cessation of productive work and so one mourns for departed friends, and misses the old inter-activities and looks upon the life ended as a life cut off with its work unfinished.

This was particularly true of our old friend and associate, Frederick W. Hill, whose earthly labors were suddenly terminated on December 21, 1929.

Here was a man who has been in charge of the printing of our Journal since its inception in 1905. He has seen Editors and Publication Committees drop out of life's procession and he has welcomed the later incumbents with the same kindly friendliness that he had always extended to their predecessors and his advice and helpfulness were always, although never obtrusively, at the service of his co-laborers. During these long twenty-four years, always could his assistance be obtained in smoothing out the troubles of inexperienced Journal officials and although his later years were years of pain and suffering, still would he always greet his visitor with a cheery smile and pleasant word and the helpful advice that made the work of his associates so much easier.

We shall sorely miss him from his desk in the Orange printing office but we shall never forget his courage, his kind heartedness and his willingness to help those of us who so urgently needed such coöperation.

"God of all flesh, when these my days are sped
Let me but hear the music of the spheres
Or see, far off, the progress of the years
And I shall be greatwhile content though dead;
For to their heavenly music I am wed
And thrill with subtle thrills, nor yield to fears."

In Memoriam

FOSTER, George H., of Main Street, Rockaway, passed away on the morning of December 11, 1929, at his late residence, following a lingering illness.

Dr. Foster was born at Branchville, Sussex County, in 1859, son of the late Harvey P. and Susan E. (Beemer) Foster.

After completing the curriculum of the common schools of Sussex County, he attended the Newton Institute for 1 year, then began to teach school and engaged in this work in Morris County for the ensuing 3 years, at the end of which time he began to study medicine under Dr. Booth at the Morris Plains State Hospital, where he was employed. In 1887 he was matriculated as a student in Bellevue College, New York City, and in the medical department thereof he was graduated 3 years later with the degree of Doctor of Medicine. Immediately after graduation he went to Rockaway and there initiated the active practice of his profession which he continued for over half a century.

STAEHLIN, Edward, one of Newark's leading surgeons for more than a quarter of a century, died in his sleep December 9, at his home and office at 15 Lincoln Park.

He seemed especially well over the week-end and went to bed apparently in good health. When members of the household tried to rouse him at 8:30 a. m. he was dead. Chief Medical Examiner Martland said death was due to heart failure.

Dr. Staehlin was born in Newark, June 25, 1865, and received his elementary education in the public schools. He was graduated from Newark High School in 1883. Four years later he received his bachelor's degree from Yale and entered the College of Physicians and Surgeons of Columbia University.

Following his graduation from medical school, Dr. Staehlin went abroad for study. He spent a year under surgeons in Vienna and Berlin and returned to Newark, where he opened an office at 493 High Street in 1894. He moved to the Lincoln Park home more than 20 years ago.

For 25 years, until a few years ago, Dr. Staehlin was president of the medical board of Newark Memorial Hospital and for 18 years was attending surgeon at Newark City Hospital, as well as a city district physician.

When he resigned in 1923 "to make way for a younger man," he was appointed consulting surgeon at the city institution.

At the founding of Babies' Hospital in 1896, Dr. Staehlin was placed in charge of all surgical work there and continued to serve as attending and consulting surgeon until his death. He was connected, as visiting surgeon, with many other hospitals in Essex County.

He was honored several years ago by election as a fellow of the American College of Surgeons.

BURROWS, C. G., after several weeks of suffering from an infected leg, died at his home on Grantville Avenue, Margate, Atlantic County, December 8, 1929.

He was 45 years old, and is survived by a widow and two sons, aged 8 and 10.

Dr. Burrows came to Atlantic City 13 years ago from Canada, being a graduate of a hospital in Montreal. He speedily became identified with this resort's social and fraternal affairs.

Medical Economics

GROUP PRACTICE

In Medical Times (New York, September 1928) Dr. W. L. Love, of Brooklyn, offers some pertinent suggestions regarding the advantages of forming suitable groups of physicians for practice of medicine on a modern business-like basis, as follows:

"In my opinion we are rapidly approaching the era of Group Medicine. It is the natural sequence of events since the World War. At that time many a country doctor was happy in his home environment in his little sphere on 'Main Street'. The lure of the Big City was an unknown quantity. He was the 'big fish in the little puddle,' contented, prosperous and happy. Then the call came, and he left his practice and went to the 'colors'. After the experience that some of the unsung heroes of our medical profession had, life became a different thing altogether. When the war was over the doctor had a new vision, a new perspective. Quite likely he came out a specialist in certain branches of surgery or the x-rays or some other specialty. He had to be re-allocated. He couldn't go back to the old way of doing and living—he was transformed.

Ten years have elapsed and at this time I venture to say without fear of contradiction that a good proportion of the leading specialists of the various cities throughout the United States are the direct product of a new environment due to the World War.

Indeed, from an economic standpoint it seems to me that we are approaching a crisis in the health and sanitation of our State. Many and many a prosperous village or small community is offering financial inducements to a doctor to come and locate within its borders. Really, if we should have another epidemic of la grippe or something of that sort, I don't know what would happen in many communities. People would be panic-stricken with no physician to go to for miles around. This is going to be a *great medical problem of the immediate future*.

With this paucity of country doctors, however, there has come a corresponding plethora of aspiring medical men in the great cities. It is tragic to see, in the vicinity of the various city hospitals and medical centers, the rows and rows of doctors' signs. How many a fellow who could be prosperous and happy, with a sure income, in a small country town,

is housed with his wife and family in a dark, often ill-ventilated apartment in every one of the great cities of our Union.

We are in an era of specialists, and specialism is being largely overdone. Too many young men want to become surgeons. There is a great opportunity to be a specialist in family practice. But the net result of all this is to emphasize the fact that a partnership is just as desirable in the practice of medicine as it is in the practice of law. No man can work 7 days in the week without let-up for any continuous length of time without paying the penalty. The fairly well-to-do lawyer takes frequent week-ends in making little trips with his family. He takes a winter vacation at Palm Beach, or motors through the South, and his partner attends to his practice. The doctor of equal standing feels that it is essential to his success to be on the job 7 days in the week. Which of the 2 men is the healthier and more capable of functioning with 100% efficiency 15 years after graduation from college?"

Medical Ethics

PATIENCE, DELICACY AND SECRECY

JOHN HAMMOND BRADSHAW, M.D., F.A.C.S.
Orange, N. J.

The second section of the Principles of Medical Ethics of the American Medical Association is one of the most important of them all. Of course anyone would be stark crazy to become a doctor if he did not possess patience. Unless you have had at your very start in the profession some rare and unusual boost of fortune, your recollection of your first few years of practice is one of patient, if not anxious, waiting, and of hope long deferred. This section, moreover, does not mention the stages—one, to, and three—of labor, where patience often becomes even a life saver for the mother. Nor does it refer to your opinion of that notorious delinquent whom we have so many times notified that man cannot live by bread alone, and that the doctor requires other things in life than a full cupboard and a satisfied stomach.

As this section of Medical Ethics of the A. M. A. is further developed, let us quote a few sentences direct from the document: "The confidences concerning individual or domestic life entrusted by a patient to a physician and

the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should not be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge obtained through the confidences, intrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the law of his Commonwealth concerning privileged communications."

All will agree that this is very well stated and is surely extraordinarily explicit in covering the subject. Yet this section has caused more mental disquietude and given more real trouble to the doctor than any other. The writer has a very distinct recollection of a certain case among one of his best families. The events occurred many, many years ago. Both the principals are now dead. It is not an unusual story and possibly can be duplicated from the history pages of many physicians. A beautiful girl, the young wife of a prosperous citizen, came to the office one morning with evidence of a specific disease. Naturally, a smear was taken and a wicked pleasure-loving bug was found. The husband that night was told in secret over the 'phone that he should come to the office for a personal examination. We are not surprised to learn that similar conditions were discovered. Appropriate treatment ended, we thought, not only the cure but the incident. Sad to relate, this was not the case, for not many months passed before it was learned from a third party that the young wife was suing her husband for divorce. The matter was dismissed from mind in the press of work, until one day there appeared in the office that delectable personage, the process server, with a nice little subpoena citing the physician to appear in court.

Skipping a mass of disgusting details, after many hours the physician was called upon the stand. He was not asked if he had found disease in the wife, but the question put to him was: "Did you, or did you not, at such and such a date, find the presence of the gonococcus germ in the smear you took from Mr.—?" The physician at once asked the Judge if the law compelled him (as the re-

cipient of a private communication) to testify. The Judge replied that the law required him to answer either "Yes" or "No" to the question. *As a result of that answer* the lady won her suit, together with a very considerable alimony.

Of course, you will say, the man got only what he deserved. But did he? The physician in the case knew (which matter did not arise in court) that the young wife was extremely popular with the male sex, that she had frequented the gayest of night clubs, while her husband was away on business trips. In other words, she was not exactly like the wife of Cæsar.

Did the physician do all he could do to follow his Code of Ethics?

Esthetics

ATLANTIC CITY GOES ARTISTIC

Under the above caption the Literary Digest (December 7, 1929) in its department of Letters and Art, describes the public gallery recently established in the great auditorium of the World's Playground. As this refers to an important step in the artistic life of New Jersey, and because so many of our members will have the opportunity to visit the exhibition when attending conventions here, or perhaps when seeking a few days of diversion from active practice, we present a liberal abstract of the Digest article.

"Modern art is here, so you'd better get used to it." This advice was given in Atlantic City, where bathing beauties formerly held sway as the highest esthetic expression. Marble and paint now are the competitors of the beauty show, and the Atlantic City Art Association, established in the new Municipal Gallery, bids fair to be the more potent attraction. It is another sign that modern art is coming to the fore. The first exhibition, which began on June 18, 'generally met with the approval heretofore reserved for the various Misses America,' says Aaron Marc Stein, in the New York Evening Post. That 'Atlantic City has been fired with the ambition to do something for American art' is taken as a sign of the times. The Atlantic City Art Association began its career with 2 small local exhibitions. But with the influx of summer visitors came a show on a national scale:

The city has contributed the furnishings, light and heat, and the services of guards at

the entrances. The Atlantic City Art Association meets the expense of the gallery staff, of collecting, transporting, and installing exhibits, of the insurance on exhibits, and all similar costs.

The association's funds were supplemented by private contributions. The list of contributors gives ample indication of Atlantic City's faith that American art was destined for a popular appeal. The boardwalk hotels are conspicuous among the contributors, especially the Chalfonte-Haddon Hall, the management of which is so much interested in the development of this new ideal of beauty for Atlantic City that the name of the hotel also appears on the list of purchasers of works of art from the summer exhibition.

Mr. Stern selected the works of art for exhibition with the assistance of Edith G. Halpert, director of the Downtown Gallery, New York, and Holger Cahill of the Newark Museum. A catalog was printed, with a cover by Louis Lozowick, a young American artist, favorably known for his lithographs of American industrial subjects; and the interior of the gallery was prepared to house the exhibits by Donald Deskey, a New York interior architect, whose work at the Designers' Gallery on Fifty-seventh Street won much praise last year. He designed a set of partitions, selected the furniture, and built the pedestals for the sculpture.

The exhibition opened on June 18, and crowds thronged in from the boardwalk to look at modern American art. On holidays the gallery was even overcrowded.

Some of the exhibits were signed with familiar names, and some were the works of young men virtually new to the exhibition room. All but a few of the exhibitors, however, had never shown their work to crowds so large before. Even those who had many shows to their credit had appeared only in the small galleries frequented only by the few odd individuals who have been conscious of contemporary American painting and sculpture.

This first exhibition in the Municipal Art Gallery is the expression of a faith in contemporary American art, and of a belief in the vital significance of the artists' contribution to our civilization. It has often been said that to understand a civilization we must first know its art. In recent years our museums and our rich collectors have spent millions to acquaint us with the art and life of other peoples and other times. Yet our museums and collectors, with some notable exceptions, judged by the attention which they have given

to American art, have made little effort to acquaint Americans with their own civilization.

In past times it was possible to answer that, aside from the work of a few painters, America produced little which a disinterested critic would call art. That answer is not possible today. American art has definitely arrived. It has long since passed the provincial stage. Heretofore our artists and collectors have looked to Europe as the center of world art, but today there are signs that the center is shifting westward.

The exhibition committee, in expressing its faith in contemporary American art, is not turning its back upon the art of the past. It believes, however, that the art of the past lives in the art of the present, in the work of men and women who are contributing to the development of contemporary art, and whose loyalty is given to the tradition of art itself and not to formulas which have been dignified with the name of tradition.

The art of our time must be created out of the life and thought of our time. In presenting its selection of contemporary American art, the exhibition committee takes as its thesis the statement of the distinguished scientist and educator, Alfred North Whitehead, in his collection of essays, 'The Aims of Education,' that: 'The only use of a knowledge of the past is to equip us for the present. . . . The present contains all that there is. It is holy ground, for it is the past and it is the future.'

Collateral Medical Reading

MEDICAL LEADERS; FROM HIPPOCRATES TO OSLER

Last month, the editor reviewed 2 new and very interesting books dealing with the history of medicine and published for lay readers, but which he thought all members of the medical profession could read with profit to themselves. It is a pleasure to present this month a worthy addition to the small list of books bearing such a character. Through the Bobbs-Merrill Company, Drs. Samuel Lambert and George M. Goodwin, two of the most eminent physicians of New York City, have given us a fascinating story of the progress of scientific medicine.

As a brief description, we can do no better than reproduce the review published by the New York Times, Sunday, December 8, 1929, as follows:

"Dr. Lambert and Dr. Goodwin, the former being especially well known as dean emeritus of the College of Physicians and Surgeons, and sometime president of the New York Academy of Physicians, prove that the exacting demands upon the time of busy men of medicine have not prevented them from writing one of the most capable and perhaps quite the most interesting of all the many accounts of the history of the development of medicine that have appeared in a long time. They divide the 24 centuries over which their survey ranges into periods distinguished by some outstanding theory or practice or fact of medical knowledge, and treat each one in a chapter which sets forth the medical development marking the time, considers the general status of medicine during the period and tells briefly about some of its important protagonists, but is chiefly devoted to an account of the life, works and personality of the man or the several men who gave to the period its outstanding quality.

Thus, after chapters dealing with medicine before and among the Greeks, the Romans, the Moors, and in Italy during the renaissance, they take up Paracelsus as the chief figure in the revolt of the sixteenth century against the long-dominating traditions of Galenic medicine, and then go on to the revival which soon followed of scientific methods and of investigation and experiment in which the Italian Vesalius and the Frenchman Paré were leaders. Of the many important men of the period which saw the discovery of the circulation of the blood, William Harvey gets most attention, while Jenner and Pasteur are outstanding among those who laid the foundation of bacteriology. One chapter discusses interestingly the philosophers and their systems which touched or influenced medical development from the seventeenth to the nineteenth century. Spencer's definition of life the authors quote as being 'preëminently the philosophy of medicine today.'

An entertaining section is that which deals with the quacks and charlatans who won followings, and frequently wealth, from a credulous populace from the seventeenth century to the present time. It ends with several pages of unsparing criticism of present-day quackeries and fads. Other chapters make the record complete, the final ones dealing with Lister, Gorgas and Osler and the periods in which their work gave importance to medical development.

This method of treatment enables the authors to illuminate the history of medicine by

the conception of its growth as a steady evolution which, notwithstanding periods of stagnation and arrest, has flowed on in a continuous stream through all the centuries which their survey covers. They make their theme broader and more interesting by relating, though sketchily, the medical status and events of each period with political, social and economic conditions, and they constantly point out the emergence of ideas now and again that are not developed at the time, are forgotten, perhaps for centuries, and finally come forth again as epoch-making discoveries."

Special Notice

POSTGRADUATE STUDY PLAN OF STATE MEDICAL SOCIETY AND RUTGERS UNIVERSITY

M. A. CHAFFEE,

Assistant Director University Extension Division
New Brunswick, N. J.

By means of a coöperative arrangement between the University Extension Division of Rutgers University and the Medical Society of New Jersey, doctors throughout the State will be given the opportunity of receiving postgraduate instruction in subjects which will enable them to keep informed of modern developments in the medical field. The University, in coöperation with the State Medical Society, will offer 2 courses this year, one in General Medicine and one in Traumatic Surgery. Classes will start in April at a number of centers to be designated later, and will be held once a week for a period of 8 weeks.

All details concerning the professional aspects of the courses are in charge of the officers of the society and the members of its Educational Committee; it was through their efforts that the Extension Division of Rutgers University was obtained to handle the business details of publicity, organization, collection of fees and other routine matters.

The following Educational Committee has been appointed by Dr. Andrew F. McBride, President of the Society, to coöperate with the University in the operation of this program: Samuel A. Cosgrove, Jersey City, chairman; Clarence L. Andrews, Atlantic City; Royce Paddock, Newark; H. H. Satchwell, Irvington; Alex Macalister, Camden; H. H. Ander-

son, Burlington. Drs. Morrison, Reik, and McBride are acting as ex-officio members.

During the past 6 months members of the committee have given considerable time and thought to the completion of arrangements for successful conducting of these courses. They have already secured as lecturers and instructors a number of outstanding doctors who are recognized as authorities in their special field and who are noted also for teaching ability. These men are being selected almost entirely from the staffs of Universities in New York City and Philadelphia. The members of the committee realize that if the courses are to be of real value and the project is to be carried through to successful termination, the best men available must be secured to deliver the lectures and to lead the class discussions. It is the purpose of the committee to engage men of such high standing, and to make the courses so interesting, that no member of the medical profession in New Jersey can afford to be absent.

Rutgers University has agreed to offer either one or both of the courses in any "center" where a minimum enrollment of 25 can be secured. Complete details of the curriculum, together with names of the instructional staff, will shortly be brought to the attention of all county medical societies. Each society is urged to take immediate steps to determine whether or not it will be possible to organize a class for its members. It is suggested that in the smaller populated districts arrangements be made whereby 2 or 3 adjoining county societies unite in the formation of a class center.

A fee of \$30 will be charged each student enrolling in the course; the fees being utilized for payment of lecturers and incidental expenses necessary for operation of such classes. It is planned to hold meetings in local hospitals, where such are available, or at places most convenient to members of each class. The time of the meetings will be determined by each study group, and may be held either in the morning or evening, according to local conditions.

The months of April and May have been selected for conducting the courses, because, in the opinion of members of the Educational Committee, there is less pressure of professional duties at that time of year.

For some time past the Medical Society of New Jersey has recognized the need for a program of instruction which would enable its members to keep abreast of current developments in the medical field. It is believed

that adoption of the present program will meet this need in a way which will have broad appeal. Rutgers University, through its president, Dr. John M. Thomas, has expressed itself as eager to do everything possible to insure success of the project. It is sincerely to be hoped that members of the medical profession in New Jersey will give their wholehearted approval to the plan outlined.

All doctors interested should write at once to the University Extension Division, Rutgers University, New Brunswick, N. J., or to Dr. S. A. Cosgrove, 254 Union Street, Jersey City, N. J. In the next issue of the Journal, announcement of the complete program will be printed.

In Lighter Vein

As to law enforcement the first essential to a successful operation is to have your instrument clean.—San Francisco Chronicle.

The most enjoyable way to follow a vegetable diet is to let the cow eat it and take yours in the form of steak.—Brooklyn Times.

Three Washington Times reporters are sent to jail for refusing to tell where they bought their liquor. This is all wrong. Such rare birds should have been put in the Smithsonian.—The New Yorker.

A Hiawatha, Kansas, flapper hands out this advice to her sisters who are undecided about going into long skirts: "Let your chasis be your guide."—Kansas City Star.

Better Stand Pat

She came into the police station with a picture in her hand.

"My husband has disappeared," she sobbed. "Here is his picture. I want you to find him."

The inspector looked at the photograph. "Why?" he asked.—Chicago Tribune.

Junior Whoopie

"Now, if you promise to stop cryin' an' be a good boy, I'll take you down to see the accidents."—Dublin Opinion.

Jack had just been informed by his guv'nor that he was spending more money at college than he should.

"Son," remarked the guv, "I know you're spending it on whiskey and women. I don't mind your fooling with one of these, but you can't keep up the pace with both. You've got to cut out one of them absolutely."

"All right, Dad, I'm willing. Which one would you advise me cutting out?"

The old man thought in silence for a moment and then he answered: "Son, you can drink all the whiskey you want when you get old."

—Kalends.

Observations from the Lighthouse

DIABETIC COMA—THEN AND NOW

Few therapeutic conquests of the first decade have been so striking as that of insulin in the control of diabetes. It is only a few years since diagnosis of diabetic coma was equivalent to a prognosis of impending death. At present, we are told by the most eminent authority upon the subject that "no honest doctor can camouflage a fatal case of diabetic coma as representing the natural culmination of the disease, nor believe with a clear conscience that fatal diabetic coma is ever a justifiable or inevitable catastrophe".

Reginald Fitz, of Boston, comparing conditions prior to and since the advent of insulin (*New England Jour. Med.*, 201:967, Nov. 14, 1929), says:

"Up to October, 1922, when insulin was first used clinically, there had entered the medical wards of the Peter Bent Brigham Hospital some 17 diabetic patients with sufficient acidosis to produce a diminution of the blood bicarbonate concentration to a point below 25 volumes per cent. and a clinical picture of marked air hunger with more or less complete unconsciousness. These patients were treated in various ways, chiefly with large amounts of fluid. Many received infusion of glucose, levulose, or bicarbonate of soda. All of them died within 5 days of their entry to the hospital. No complication of any other common chronic illness had so complete a mortality.

Since October 1922, when insulin was first used clinically, there have entered the medical wards of the Peter Bent Brigham Hospital some 23 patients with sufficient acidosis to produce a similar picture. These patients have been treated in various ways, chiefly with insulin and large amounts of fluid. A few have received infusions of glucose or bicarbonate of soda. Of these, 15 have recovered from the coma and 8 have died within a few days of entry to the hospital.

No complication of any other common chronic illness has ever responded to proper treatment in so spectacular a manner as does diabetic coma at the present time. Uncomplicated diabetic coma is no longer an especially serious illness.

In the treatment of acidosis, insulin accomplishes in a few hours what fasting accomplished in a few days. It is necessary, however, to use large and repeated doses of the drug and a modicum of intelligence. Under proper management the blood sugar level falls quickly to normal; the acidosis, as measured by the blood bicarbonate concentration, disappears very promptly; the sugar in the urine vanishes; the patient regains consciousness, begins to eat and drink normally and the emergency quickly passes over. No longer is prolonged starvation or a protracted course of malnutrition necessary. An attack of coma is an acute affair, over with quickly, and is apt to be far less debilitating to the patient than is a simple appendectomy, or a quinsy sore throat to the ordinary individual.

The successful treatment of diabetic coma depends on its early recognition and this in large measure depends on the keenness of the family doctor. Any patient with diabetes may develop coma. It may come on suddenly or follow even the most minor infection. All patients with diabetes, therefore, may develop coma and must be carefully watched.

The patient bordering on diabetic coma is likely to have an upset stomach, and may complain of

abdominal pain. The differential diagnosis between diabetic acidosis and an acute abdominal emergency in a patient with diabetes is by no means simple, especially since in both conditions there may be shock, fever or subnormal temperature, and an elevated white blood count. On general principles, it is safer to assume that a diabetic patient with sugar in the urine, pain in the abdomen, nausea and vomiting, a flushed face and air hunger, has acidosis rather than appendicitis, and to use insulin and then call the surgeon.

When dealing with older diabetics, it is worth bearing in mind that the apparent coma may be referable in some manner to a cardiac complication, even though treatment for coma is indicated. In the group of older patients, too, a cerebral vascular complication is sometimes encountered. A sudden, cerebral, vascular accident will throw a patient into coma.

The principles of treatment for diabetic coma are comparatively simple. The patient in coma needs insulin because he is excreting a large amount of sugar in the urine and has a large accumulation of blood-sugar and acidosis; he needs fluids because he is dehydrated; he needs warmth and the best of nursing care because he is somewhat shocked and in a state of more or less unconsciousness; he needs a doctor because he is face to face with a dire emergency and may lose his life if the doctor is not properly on the job.

The manner in which treatment is carried out varies in the different hospitals. At the Peter Bent Brigham Hospital our nurses and house-officers have received the following instructions for the management of diabetic coma:

- (1) As soon as the patient arrives place him in a warm bed.
- (2) Give an enema and obtain a blood and urine sample.
- (3) Give 1000 c.c. of saline subpectorally at once.
- (4) Give 25 units of insulin at once.
- (5) Give insulin about every 2 hours thereafter until the urine becomes sugar-free, judging the dose by the amount of sugar present in catheter urine specimens. When the urine becomes sugar-free continue to examine it at 3-4 hour intervals using enough insulin to prevent the return of glycosuria and acidosis.
- (6) Let the patient have about 4000 c.c. of fluid each 24 hours during the first few days in the form of subpectoral injections, rectal taps or fluids by mouth. The rectal tap should consist of 5% glucose in saline or tap water. Do not use sodium bicarbonate.
- (7) As soon as the patient becomes coöperative, let him have small amounts of warm fluids to drink, and, by way of food, as much orange juice, ginger ale, or oatmeal gruel as he likes.
- (8) As soon as the patient's condition warrants it, allow him to eat a low calorie "soft" diet including milk, cream, butter, crackers, eggs and cereals. Thereafter, when the patient's stomach is settled, treat the diabetes as usual, remembering that patients near coma require large doses of insulin, and that as they improve they regain tolerance rapidly and become increasingly liable to hypoglycemia reactions.
- (9) Comatose patients whose acidosis does not improve, as measured by the plasma bicarbonate, within 8 hours after insulin is first given, should receive 25 gm. of sodium bicarbonate by mouth, rectum or vein during the course of a few hours. This dose should be repeated in 12 hours if acidosis persists.
- (10) Diabetic patients admitted to the medical

wards with any complication of a possible surgical nature (carbuncle, gangrene, lymphangitis) should be seen by the Surgical Resident at once. A diabetic patient can be prepared for operation in a few hours by the proper use of insulin.

(11) Hypoglycemic reactions are to be treated with the oral or rectal administration of 10-20 gm. of sugar. Intravenous injections of sugar are rarely needed.

At the Deaconess Hospital where their experience in the management of coma is greater than ours at the Peter Bent Brigham Hospital, larger doses of insulin are used and these are given at more frequent intervals; 40-50 units may be given at a dose and repeated every 30 minutes according to condition of the urine and blood. Caffein sodium benzoate, in $7\frac{1}{2}$ gr. dosage, administered subcutaneously, is used to stimulate the circulation. The dose is repeated every 2 or 3 hours as necessary until, if required, 5 doses have been injected. The stomach, always in the case of children and usually with adults, is emptied by lavage, but with the utmost gentleness. Sodium bicarbonate is not used.

I have seen patients in diabetic coma successfully treated in their own homes and by their own doctors. I have 3 impressions in regard to the home management of diabetic coma which perhaps are worth emphasizing. The factor of time in treatment is of great importance. To treat coma successfully, it must be recognized early and treatment must be begun immediately. When a doctor gets a hurry call from one of his diabetic patients, he should answer the call as quickly as possible. If his patient is nauseated or vomiting, he should be on the lookout for coma.

Infections may not only cause a patient to develop coma, but also add a grave hazard to an already serious condition. The patient bordering on coma should be protected from acquiring infection in every possible way.

It is necessary for the doctor in charge to 'camp' on every coma case. Unless the treatment is supervised carefully during the few days of critical illness, the result will not be satisfactory. Patients slip into and out of acidosis with extraordinary rapidity.

The family doctor is under a definite obligation to his diabetic patients. He is the first to be called when any emergency arises. He has a great opportunity to establish the diagnosis of diabetic coma in its early stages and to prevent its development. Coma causes far too many diabetic deaths each year. The present high death rate can be lowered if only doctors throughout the country will admit the practical importance of the problem and learn how to recognize and treat diabetic acidosis before it becomes dangerous."

Lay Mirror Reflections

THE DOCTOR'S BUSINESS

(New York Sun, Dec. 12, 1929)

"Public health has taught us that one man's health is everybody's business," writes Dr. Ray Lyman Wilbur, officiating not as Secretary of the Interior but discussing medical progress in an economic world in *Medical Alliance Review*. Dr. Wilbur charges that his profession neglects the business of medical practice and urgently needs the assistance of economic advisers.

An organized world of business, by its dominating influence, has wrought in medicine changes which that profession, preoccupied with purely scientific progress, has failed to observe. "Medicine stumbles ahead as a great social factor led by a few far-seeing individuals, prodded by a lot of uplifters, legislators and enthusiasts," Dr. Wilbur declares. He proposes a study program on the cost of medical care with the aim of formulating standards of business practice, and would seek the guidance of social workers and economists. He holds that "some plan must be devised so that official snoopers will not be projected between doctor and patient," and warns that

"The golden thread of human understanding and of close personal relations between doctor and patient may be left out of the new social fabric which is being woven right under our eyes."

But one of the chief criticisms leveled at doctors by this member of the profession is on the score of their uneconomic system of fees. He asks curtly: "What other business has a sliding scale of charges varying from \$25 to \$10,000 for the same service?"; and reminds his colleagues that free work and uncollected bills form a large item in the accounts of the average physician.

Like artists and some kinds of musicians, doctors do not devote sufficient care to their practice as a business, it would appear from these charges. They are too satisfied to depend on a secretary or other assistant for financial advice. They err on the side of altruism. Dr. Wilbur's argument that medicine has proved itself too valuable for society to allow it to be inefficient and inadequate in service may sound like a strong rebuke, but it is unanswerable.

Current Events

WELFARE COMMITTEE MEETING

Trenton, New Jersey,
December 1, 1929.

Pursuan to a call, under date of November 21, a special meeting of the Welfare Committee of the Medical Society of New Jersey was held at the Stacy-Trent Hotel, Trenton; being called to order at 3 p. m., by the Chairman, Dr. A. Haines Lippincott.

Roll call indicated the presence of the following members: Bloom, Clayton, J. G. Coleman, Davis, Donohoe, Ely, Emory, Green, J. F. Hagerty, D. Leo Haggerty, Larkey, Lee, Lippincott, Londrigan, McBride, McMahon, Morrill, Morrison, Morrow, Schaffner, Schlichter, Schureman and Sewall; Dr. Kelley was present as representing the State Board of Medical Examiners. Excuses were received from Barkhorn, Conaway, Emerson, Mulford and Sherman.

Chairman: The call for this special meeting announced its purpose and I have the privilege of introducing Senator Leap, of Salem County, and requesting him to present his views concerning the Medical Practice Act of New Jersey.

Senator Leap: I have been more or less interested in the medical, dental and veterinary laws, and I have 2 purposes in mind in speaking to you today. At present, each of these medical groups has a Board of its own and enforcement of its laws is put up to its own Board. I am told by Dr.

Kelley and Mr. Fischelis that it is not profitable to those Boards. There is an overlapping of work done by these Boards and it is my thought that, if it is possible, a law should be drafted similar to that of Illinois which uses the Department of Education to give all examinations, but for each particular branch there is a separate Board that frames the questions and marks the examination papers; yet all is under the control of the Board of Education. As to enforcement, instead of the different Boards sending men out to investigate matters, there is one group of investigators to watch observance of all the laws. I have asked Mr. Charles Bacon, the State Librarian, to make a collection of the laws of the different states, and I think he probably has that at the present time, though I have not received it.

Now there is another angle to this matter. I realize the attitude of the state medical society toward quacks and the different cults, such as chiropractors, and that you gentlemen probably look at them as outcasts, but I feel that some of these men are probably bad and some are probably good. I think it would be good policy to bring the good ones out into a group where you could have some oversight of them. Some few chiropractors and naturopaths have been licensed but the requirements under our present law are such that unless a man has had 4 years of education in a particular branch, he cannot take the examination. It occurs to me that it would be better if a law, possibly only temporary in character, could be passed to permit your medical board to give an examination to these different classes of practitioners, no matter what they call themselves, and see whether they are fitted to carry on such practice as they claim the right to.

Dr. Sewall knows the man of whom I am now going to speak. Heinze (?) is a radical but he is a bright man who studies every day in the week and I believe he has a very good knowledge of the subjects embraced in what he is trying to practice. He is a naturopath and has made a study of electrotherapeutics, and massage, and treatments of that kind. At the present time he is practicing illegally. Might it not be possible to have an examination given to some of these people who have studied and extended their work. If, as a result of that examination, these men are found qualified to carry on that work and they are allowed to practice their particular lines, they will become good citizens and will be a help to you and your Board. Those who cannot pass such examinations should be chased out of the state. I have no idea of providing for a separate Board or giving them special privileges, except to submit them to this test by your own Board.

Some of the doctors ask me whether I would think of admitting to the practice of law any one who had not graduated from a law school. My answer is that we require that a man must have actual experience of practice in a law office and then pass an examination before the Bar Association. I believe some of these men practicing medicine without having passed all the college tests are doing some good and I think the public feels that they are being persecuted when their practice is interfered with. You must remember that every time one of these men is prosecuted he has 50 or more friends who feel that it is persecution. Elmer Long said to me the other day that while he realized some of these naturopaths are not practicing within the law he thought some of them might be doing good work. Why is it that they cannot be admitted to practice in a limited way? I believe it would be a step in the right direction to give

these people the privilege of taking a special examination. I would have them admitted to practice legally and then put them under control of the state. If you can see your way to recommend such a change in the law it would not harm you and it would be appreciated by the public. Perhaps it might be done as in Pennsylvania, I believe, where physiotherapists are required to practice in association with a legally registered physician.

I am not representing a group of chiropractors or naturopaths. I came into this matter because of friendship for this one man. I defended him years ago when the osteopathic Board prosecuted him, and I got him off. He is not bitter about the matter but wants a chance to show that he is capable of doing what he claims ability to do. I have refused to take other cases of the kind and I am not interested financially in defending this man.

Dr. Green: I would like to ask the Senator 2 questions: First, does he wish to extend his proposition to include letting down the bars also to those taking the examination to practice medicine proper—young men perhaps who have a medical degree, obtained from a second or third rate college; second, how long does he propose to leave the bars down for the naturopaths?

Senator Leap: I have no desire to lower the bars at all, and interfere with the structure of the present law but just in the case of men who have practiced 10 years or more, to inquire into what they have been doing, and to examine them in the particular branches of medicine they practice.

Dr. Lippincott: Is it your intention to introduce some special legislation bearing upon this matter?

Senator Leap: It was my intention to discuss it with your committee and find out if you were willing to coöperate in this matter.

Dr. Schauffler: I think we are to be congratulated upon having Senator Leap attend this meeting, for it is the first time in the long period of our existence that a member of the legislature has come to confer with us. We cordially welcome the Senator. I would like to ask him whether, in case such legislation as he suggests should be adopted, they would be satisfied to have the examination made by the present State Board of Examiners.

Senator Leap: It is my idea that they should come before the present State Board of regular Medical Examiners.

Dr. Morrison: I would like to impress upon the Senator the fact that this group he has addressed, the Welfare Committee of the state medical society, is not interested in the point he made concerning the effect such legislation might have upon our interests. The primary idea with us is the *protection of the public*. It was with that idea in mind that the law was amended a few years ago to provide limited licenses—a license that is now extended to the very men for whom he makes his plea. Such practitioners have only to measure up to the standards set by the state—standards not set by the medical society—show that they measure up to the standards set for the particular, limited, kinds of practice they claim to perform. There are today several subclassifications of practice open to them. There are established standards for entrance into the regular and full practice of medicine; there are lower standards for those who would practice in limited fields, like chiropractic; we cannot entertain the idea of lowering any of these standards every time some particular individual wants to secure a special license.

Dr. Hagerty: May I remind the Senator, who is a lawmaker, that a law to be a good law must be

a just and impartial one. Everybody aspiring to the practice of medicine should be required to comply with the laws now upon the statute books. Surely he would not have us evade the law as it exists. Those who want to practice the limited types of medicine to which he refers, even though they do not have our approval, now have the privilege of taking special examinations. I cannot conceive of a lawyer and a senator seriously asking us to advocate lowering the bars to permit the entrance of special, favored individuals.

Dr. Morrison: Perhaps the Senator doesn't know that when the osteopaths and the chiropractors sought the privilege of practicing under the laws of this state they definitely stated that they would limit themselves to practice within the fields of osteopathy and chiropractic as defined by themselves and that they did not want to practice medicine in any other respect, but that it was not 5 years after they were granted those privileges that they introduced new legislative amendments, claiming their right to practice general medicine. It has been the history of every one of these special culths that they seek only to enter a limited field and then to extend themselves to the full practice of medicine. The Senator's plan would afford them the opportunity again to fool the public.

Dr. McBride: In common with all the other members of this Welfare Committee, I am glad that the Senator came here today, for out of this conference there should come a better understanding. We have been striving for years to secure medical laws that will best protect the public. We have been accused of trying to build up some protection for ourselves but I think the Senator can see that such an accusation is far from the truth.

I am sure the Senator has not in mind introducing any legislation that is not of a proper character. But I would ask him—if the laws are modified so that certain people may be permitted to practice medicine without meeting the requirements of the existing law, what is going to prevent another group from asking some other special privileges. If the gentleman to whom he refers is so bright, and intelligent, and constantly striving to advance himself in his calling, why has he not been able to pass the examination given by the present Board to applicants for a limited license?

Senator Leap: He is a chiropractor and a naturopath but the latter is not recognized in the present law. He is also an optometrist and he has been studying electrotherapeutics. His point is that the practice of straight chiropractic has limitations.

Dr. McBride: Well, that is just what Dr. Morrison has explained to you. They all start out with a request for permission to practice in a limited way, and then desire to enter upon the full practice of medicine because they soon realize that caring for the sick requires a knowledge of more than one so-called branch of medicine.

We do not care about the 50 friends of an unqualified practitioner who has been prosecuted, and *you* must not consider simply the friends of such individuals; you must, as we do, consider the public at large. It is not for the medical profession that we are concerned; we can take care of ourselves and we probably have as many friends as any of the irregular practitioners. This matter is too serious to be looked at in that way; too serious to permit the helping of any individual on the score of friendship. Members of the medical profession are, generally speaking, fair men and their life work makes them wish to be helpful to everybody, but in this matter the protection of the pub-

lic weighs more heavily than the protection of any one man. You would surely, Senator, want to protect the members of your own family against incompetent practitioners and not lay the field open by special legislation for the entrance of incompetents into the practice of medicine.

Senator Leap: At the time the limited license act was passed and the requirement of 4 years' study was set as the educational test, most of the men who had then graduated had taken only a 3 years' course and they could not appear before the Board for examination without returning to school for another year's work. I would call your attention to the fact that in each of the past 2 years special bills, regarding naturopathy and chiropractic, have come near to being passed by the legislature and that in the next General Assembly there are a number of members who are on record as favoring the passage of such laws. I realize that it is a mistake to create any more Boards and I do not want you to think I am contemplating a separate Board or favoring such a move but I feel that the medical society would be in a better position to oppose legislation of that kind if it would remove the cause of this trouble. Under the present law even the barbers and the beauty parlor workers might be prosecuted and so they are seeking special legislation, and you do not know in what year the legislature may pass some radical bill that will destroy the present Medical Practice Act.

To enter upon the practice of law, a man can proceed by separate stages. He can be examined to practice in one branch of law, and then a year or 2 later be examined for advancement in the other branches.

Dr. Kelley: Perhaps I can clarify a few points connected with this problem. We have been discussing 2 propositions: general education and a limited practice license; and secondly, the question as it affects one particular person. Now the State Board of Medical Examiners does not make the laws; we simply administer them. The Medical Practice Act has certain requirements as to preliminary and medical education. When it comes to the limited license, the law provides for an education of 4 years' high school or its equivalent and 4 year's study in the cult school; but these last 4 years are defined as courses of 7 months each so that the whole can be covered in 28 months instead of 4 calendar years. As to limited license, the law permits the Board to make any kind of classification and at the present time we have 8 or 9 classes; we are not limited to osteopathy and chiropractic. We have been asked whether we would grant licenses to naturopaths and physiotherapists and our answer has always been that we will examine any man who can meet the educational tests. Up to the present time no naturopath has met that simple requirement of 4 year's high school or its equivalent.

As I understand Senator Leap's proposition it is to take care of men who cannot reach those requirements. I think I am right in saying that Senator Leap would consider the present law fair enough for the future if some 500 or 600 people who are now unable to meet the requirements should be admitted to practice.

Senator Leap: That's correct.

Dr. Kelley: Then in the last analysis your proposition is simply that of making a waiver with regard to high school and medical education for your friend and a certain number of people who may be in a like situation.

Now, with respect to limited license, it is, in my opinion, impossible to hold these men within the

bounds of any limited license. Chiropractic is definitely defined in the law, and the reason why the Board prosecuted this particular man whom Senator Leap refers to, and who holds a chiropractic license, was that he would not stick to practice within that license but was found to be practicing electrotherapeutics. Osteopathy is defined in the law but the osteopaths will not stick to their agreement to practice in accordance with their license. Any of these men wishing to practice some particular feature of medicine would be permitted to do so if they would arrange to practice in association with or under the direction of a regularly licensed physician.

Senator Leap: But the physicians won't work with them.

Dr. Kelley: Can you force them to by legislation?

Senator Leap: The legal requirements are not too high for the future but they are too high for some of the men who have been practicing for 10 years past and who have probably gained in knowledge by their own study and experience. You could ascertain their fitness by giving them a special examination, preferably an oral examination that would soon determine their capabilities. Heinze (?) was interested in electrotherapeutics even before he took the chiropractic examination and he has continued to study in that direction.

Dr. Kelley: We can give special examinations under the present law but so far such applicants have not been able to meet the requirements. For instance, under your plan, what would they submit as an equivalent to the high school education?

Senator Leap: Their experience in practice.

Dr. Kelley: Suppose we gave them an examination and 75% of them failed, do you think they would believe they had received fair treatment?

Senator Leap: No, I suppose not. Every man who loses his case is apt to consider the decision unfair.

Dr. Schlichter: Do I understand the Senator to mean that this relief legislation would apply only to such men as were practicing in New Jersey prior to passage of the present law?

Senator Leap: That would seem to be fair.

Dr. Ely: In regard to the preliminary education required of cultists, is there not a way by which a man can go before the State Board of Education and have his educational test decided before appearing to take the medical board examination?

Dr. Kelley: Yes.

Dr. Ely: That would seem to cover the group about which the Senator speaks.

Dr. Sewall: The man referred to has been licensed as a chiropractor. He now seeks to practice electrotherapeutics and hydrotherapy, but what instruction has he received in physiotherapy since acquiring his first license?

Senator Leap: I believe he has studied in other schools but has not had the full course of instruction that is required.

The point I make is that you have a situation that must be met shortly unless something is done to give these people the right to practice within the law.

Dr. Kelley: Senator, I think you might clear up the situation if you would tell us just what sort of a bill you would propose. Just what are you going to do with the 500 or more unqualified applicants that want to come in? Would you admit them without examination?

Senator Leap: No. Give them an educational test on the basis of requirements at the time they graduated—say in 1921.

Dr. Kelley: Well, under the present law, any man who had a 2 years' (not 4) attendance prior to 1921 can be admitted to examination.

Dr. Morrill: Where did this man take his physiotherapy course?

Senator Leap: I think at a school in Philadelphia.

Dr. Morrill: The school is a matter of some importance but of course to this body the chief interest lies in safeguarding the public health and we must not lose sight of that while discussing this particular practitioner.

Dr. Morrison: I would like to call attention to one portion of the Senator's remarks and that is—his analogy between the study of medicine and the study of law will not hold. In law you may permit one to practice before certain courts on the basis of a partial education, and then have him examined again before he can have permission to appear before a higher court. In medicine, the physician finds himself alone with the patient and the condition may be one calling for attention of the highest court; the distinction cannot be made when calling someone to treat a sick person.

Dr. McBride: Might it not be well to request the Senator to present us with a draft of legislation that he has in mind, so that we can study it and perhaps confer with him again before the General Assembly meets.

Senator Leap: I will be glad to draft such an Act and submit it to your society for any suggestions you may wish to make, and will be glad to work it out with you. I may add that I am also interested in establishing a *single Board* under the Board of Education.

Dr. Morrison: You know that such a Bill has been before the legislature and that it received scant consideration?

Dr. Davis: In drafting the Bill, can the Senator define the limitations of the different cults?

Dr. Kelley: The Board does that now but the candidates must still have definite preliminary education and a definite course of study in the cult branch they wish to practice; those are the points the Senator wants to evade.

Dr. Schlichter: If the man that the Senator speaks of took his 2 year study prior to 1921—and I think the Senator said that it was in 1905—why can he not take the examination now?

Dr. Kelley: I think he can.

Senator Leap: I think not; not as I interpret the law. Do you give any electrotherapeutic examinations?

Dr. Kelley: Yes, we have always replied to inquirers that we would examine them, but, as stated before, they could not, or would not, meet the other requirements.

Of course, Senator, a medical practice law ought not to consider the question of *treatment* at all; classification should not be made on that basis. The regular medical student does not secure his doctor's degree nor his license to practice on that basis.

Dr. Larkey: As the hour is getting late, might we not take action upon Dr. McBride's suggestion?

Chairman: Yes, I think so, inasmuch as the Senator has agreed to draft his law and present it to us.

Senator Leap: I will do that and will submit a draft to the Chairman or Secretary of this committee.

Dr. Schauffler: Would it not be wise to appoint a special committee to receive this draft and study

it before calling the committee to meet again? I would put that in the form of a motion.

Chairman: (After the motion had been seconded and adopted) I will appoint the committee in the immediate future.

Is there any other business before the committee?

Dr. Haggerty: I wish to report that upon investigation I found that the narcotic law of New Jersey is the same as the Harrison Narcotic Act adopted by the national government.

Secretary: May I report that Dr. Morrison and I attended the recent meeting of Secretaries and Editors of State Medical Societies, held in Chicago during November under the auspices of the American Medical Association and that one of the important papers presented there leads us to suggest adoption of a similar course of action here. On a previous occasion, we reported that the Atlantic County Medical Society has, for several years past, conducted a medical exhibit and a demonstration of periodic health examinations, in association with the County Tuberculosis League, at the Annual County Fair held at Egg Harbor. The State Medical Society of Nebraska has, for several years past, followed a similar course of action but on a much larger scale in association with the State Fair at their capitol. The paper presented at Chicago gave a detailed description of their procedure and we have secured a copy of that paper. In view of the marked success reported from Nebraska, we would suggest that a special committee be appointed to arrange for such an exhibition and demonstration at the State Fair annually held in Trenton.

Dr. Schauffler: I move that the recommendation be accepted and that the chair appoint a committee to arrange for and direct, if possible, such a State Fair Exhibit.

Chairman: The motion has been adopted and the committee will be appointed later.

Dr. Hagerty: At the last meeting a special committee was appointed to consider what action should be taken with reference to the type of legislation proposed in Assembly Bill 290 of last year. We offer the following report (Filed for future use.—Ex. Sec.)

Upon motion of Dr. McBride, the committee's report was unanimously adopted.

Dr. Donohoe: The special committee on "un-professional conduct" can at the moment only report progress.

Dr. Morrison: There is one other matter to be considered.

I am informed that Senator Leap has been engaged to test the constitutionality of the Medical Practice Act. If that question goes to the Supreme Court, shall we provide for representation when the case is being considered?

Dr. Kelley: The case upon which that appeal to a higher court was threatened has not yet been actually decided by the lower court; the Judge intimated what his decision would be but gave Mr. Leap an opportunity to present certain papers before final decision should be rendered. I believe that the Attorney-General's office is looking after this matter satisfactorily and that Mr. Peacock is quite as interested in this question as was his predecessor, Mr. Richmond.

The meeting then adjourned.

Henry O. Reik, M. D.,
Secretary

**BRIEF REPORT OF PROCEEDINGS OF JOINT
MEETING HOSPITAL ASSOCIATION, OCCUPATIONAL THERAPY ASSOCIATION,
AND TUBERCULOSIS LEAGUE, ALL
OF NEW JERSEY, HELD AT
ATLANTIC CITY, NOVEMBER, 7, 1929**

Landmarks of Progress of the New Jersey Tuberculosis League—President's Address

John E. Runnells, M.D.

There is a wide variation in the number of known tuberculosis cases in each county—varying from 176 to 744 per 100,000 as determined by a 5-year record of the cases on file in the State Department of Health. In the counties which have been organized with nursing service rather recently, the number of known cases is lowest. We believe, however, that the number of known cases in a community provides a good index of the effectiveness of the local program.

For many years the League has been committed to the policy of having every community supplied with nursing service. Nurses not only follow-up and advise patients going to sanatoriums but assist in putting on a general health program; often they take part in the weighing and measuring for correction of physical defects of school children. It is very gratifying that a number of counties and school districts have increased their appropriations for nursing service this year.

The laws of 1929 provide that a county or a municipality, or one or more school districts, may enter into contract with a health organization to pay for services rendered. This law widens the scope of activities and also makes it lawful to pay directly to the accepted health agency for health service rendered in that district. Possibly a law similar to the New York law, permitting the State Board of Health to match contributions of counties for health work, would make it possible for many of our weaker counties to secure adequate nursing service; and would assist the State Board of Health in its effort to widen or enlarge the sanitary districts so that adequate health machinery may be developed locally.

Plans are now under way to insure that all the pupil nurses of our general hospitals get some instruction concerning tuberculosis. In some instances, in addition to lectures received by the nurses, they will visit clinics and spend some time working in a sanatorium.

The 66 local and state clinics are offering splendid opportunities for those seeking chest examinations. A hopeful sign is the more liberal use of these clinics by physicians for consultation or confirmation of diagnosis. In some of our rural counties the clinics are serving as a "health center" for the examination of undernourished or underweight school children, and some of our general hospitals are planning to start clinics for the periodic health examination of individuals in coöperation with the medical societies.

Additional beds have been provided by the opening of Valley View Sanatorium, in Passaic County, for 192 patients; the Children's Building at Glen Gardner for 115 children; and Hudson County is to have a magnificent new sanatorium. A total of 416 new beds has been added to our regular sanatorium capacity, making a total of 2492 beds in regular sanatoriums and hospitals. As 263 beds are available in penal and insane institutions, we

have a grand total of 2755 beds, which almost reaches the standard of 1 bed for each of the 2862 deaths that occurred last year. In addition, there are 215 beds at the Preventorium at Farmingdale, some of which are available for New Jersey patients. The number of beds for surgical cases, including bone and glandular tuberculosis is 715, and 119 tuberculous children can be accommodated in the Open Air School, Newark, and the Day Camp, of the Oranges.

New Jersey Tuberculosis League

Executive Secretary's Report

There is an intangible, unexpressible part of our program which might be stated as the building of morals; the creating of a spirit which builds up efficiency and gives a whole-hearted, intelligent way in which each should assume his or her responsibility. That means an interest, an aim, a goal, to be attempted. I believe that now all of the 28 local organizations in the state have this spirit and understanding. Each one is attacking its particular problem in an efficient and understanding way.

Because of wide variation in the kinds of work undertaken by locals it is difficult to measure their efficiency or compare one with another, but each organization is striving to do the task set to the best of its ability. I believe that New Jersey is the only state in the union with territory completely covered by locals; and this state ranks high, if not highest, in the number of paid workers directing local activities. I doubt that any other state can make a better showing as to results accomplished.

We hope next year to have a service which will revise our statistics according to the 1930 census, and which will be available to locals to aid in preparing their statistics; also to study industrial statistics and try to point out some of the hazards of industry. Probably no other service can be as valuable as this in pointing out the weak spots in our program and determining our main attack in the future. Tuberculosis institutes for the medical profession will be a part of the "Early Diagnosis Campaign" next spring. Several county sanatoriums, coöperating with the medical societies, are planning to have "institutes" which will be devoted primarily to consideration of tuberculosis in childhood.

Last, but not least, we shall join with the State Department of Health in its effort to secure larger health districts, competent health officials, and more adequate service.

The Hospital as a Center for Health Education With Special Reference to Its Application to Tuberculosis

Miss Grace E. Watson,
Director of Nursing Education
Jersey City Hospital

The educational opportunities which the various departments of a hospital afford can be shared with the patients, their families and the community. "Wherever there are health experiences, there is health education."

There is practically no hospital ward in which tuberculosis may not be present in some form. It is obvious, therefore, that information concerning this disease is important to all hospital workers, not only for the sake of the patient in whom early recognition of the disease may mean its arrest and cure, but also to all of the

group of hospital workers in order to prevent infection of others and of themselves. Establishment of wards in a general hospital for the care of tuberculous patients offers excellent opportunity for instruction of doctors and nurses, and in connection with the clinic may provide a real center for community health education.

Central School of Nursing

Eleanor E. Hamilton,
Superintendent Presbyterian Hospital,
Newark, N. J.

There are several types of Central Nursing Schools now operating successfully in the United States. The first one enabled the standardized schools in Minneapolis and St. Paul to enter students in the State University, the nurse graduating from the double course receiving her B. S. degree from the University and her diploma from the training school. Soon after this, central schools were formed in Kansas City and in Grand Rapids, Michigan, each being backed by the City Board of Education. Other successful central schools are now operating in the Western Reserve University at Cleveland, in the George Washington University at Washington, and in the University of Pennsylvania at Philadelphia. Two outstanding special ones are at the University of Michigan and the Yale School of Nursing.

A central school of nursing is possible to create where several schools are centered in one city, where distances are not too great, where the basis of educational qualification for the student nurse is sound, and where several schools agree upon an established standard of educational preparation, and finally where Boards of Trustees of hospitals, physicians, superintendents and the schools of nursing can agree that a centralized plan of education is possible. This necessitates many adjustments, a small outlay of money per student and a central building where the groups can meet with prepared teachers to conduct the classes.

The New Jersey Hospital Association

Rev. John G. Martin

This convention marks the completion of 5 years of effort on the part of the New Jersey Hospital Association and it may be well to pause for a moment to get our bearings. We owe a great deal to the able leadership of our former presidents who have labored for the success of the association; to Dr. Keller, whose task it was to launch the ship and then to hold the helm until she was running upon an even keel; to Dr. Morrow, who was the guiding hand of New Jersey's interest during the important year just past when we acted as host to the National Association, and who won deserved praise for his National Hospital Day program.

It is not permitted to hospital executives to bask in glory. Reminders of errors and failures are all too frequent. But we have the comfort of knowing that for each published complaint or adverse criticism broadcast through the country, we have in our files literally hundreds of expressions of commendation.

The better the hospitals, the better the health of the communities. We are gratified to be able to report that most of our hospitals return over 95% of their patients to their homes or to industry as cured or improved. The increase of a decade in the average span of life which has been effected in the past quarter century is a feat in which hos-

pitals have had a definite part. So, even if costs have been high, results have been good. Whenever there seems a likelihood of saving a life, counting the cost is not considered. Hospital workers know of no point where it is "more economic to suffer and die".

It is well recognized that bricks and mortar alone do not make a hospital. Regardless of the buildings and equipment a hospital must develop character; the personnel from top to bottom must be endowed with an unselfish desire to serve humanity and there can be no success without this proper *esprit de corps*. Such a spirit of service within the hospital is greatly stimulated by the realization of the self-sacrificing gifts of time and money on the part of outside friends, trustees, and society members. We gladly acknowledge their valuable assistance.

Problems of Hospital Delinquent Collections

Raphael Kaufman
New York City

The losses which arise from delinquent accounts can be attributed to the following causes: Patients' contracting for more than they can pay; disputing certain items on the accounts; moving to parts unknown within 2 years; and, the hospitals' negligence in allowing accounts to run too long without action taken for protection.

Hospitals, when arranging accommodations for patients, should be guided entirely by ability to pay. In many instances those who are quite without means, and who deserve the utmost consideration, are too proud to come into the hospital on a charity basis. The cheapest accommodations such patients contract for must remain unpaid. Patients who can very well afford a charge of \$4 or \$5 find a charge of \$10 per day a hopeless burden. The patient and his family believe that no accommodations can be too good and will undertake on the moment to make any sacrifice. More often than not, the patient leaving the hospital is faced with a large bill as well as a loss of wages for the several weeks or months of illness, and this requires a serious readjustment of the family budget and creates undue hardship. The hospital can render a great kindness to the patient and his family by investigating in advance how much of a financial responsibility can be assumed.

Too often the institution takes an impracticable view of the money it receives from patients. This is difficult to understand, inasmuch as the greatest proportion of its income is derived from the money it receives from patients. In reality, if the hospital managed its credit and collection department as efficiently as it does its other departments, large deficits would not develop. It could keep its bad account loss down to that sustained by the average well managed business.

Power of the Christmas Seal

Commissioner William J. Ellis
New Jersey State Department of Institutions
and Agencies

To arouse public interest, sympathy and co-operation is always a fundamental step to the success of any cause. In the field of tuberculosis attention of the public has been in a large measure directed to the nature and extent of the problem through the Christmas Seal. It is in its educational value that the greatest value of the seal lies.

The very remarkable advances that have been made in the last 25 years against tuberculosis in-

dicating the value of public education and coöperation. *The Statistical Handbook* just published by the New Jersey Tuberculosis League gives very definite proof of what has been accomplished in New Jersey. A decline of 56% in the death rate of tuberculosis and a drop from third to seventh place in the leading causes of death are among the striking revelations of the report.

It is very largely through the power of the Christmas Seal, by inspiring public interest in the field of tuberculosis, that the state and county institutions and clinics have become the important agencies that they are today. Public opinion has been very influential in establishment of the various curative institutions throughout the state. On October 1, 1929, there were 1900 patients being cared for in state and county sanatoriums; only 12 years ago the number was less than 500.

The importance of the clinic as an education, prevention and control agency can not be overestimated. The services of a tuberculosis clinic are now available to every person in New Jersey. Through the Extension Department of the New Jersey Sanatorium at Glen Gardner alone over 50 regular clinics are held every month in various parts of the state for examination and consultation.

Probably the most important of all the educational work accomplished, is the interest aroused in the problem of tuberculosis among children. Through funds available from the seal sale the local and county tuberculosis leagues are able to promote public education as to the importance of early diagnosis and treatment in the field of tuberculosis; to establish clinics for examination and consultation; to sponsor open-air schools and nutrition classes for undernourished children; and to provide visiting nursing service to the community.

It is to assist people in doubt about their health to seek medical advice that the annual early diagnosis campaign financed by the Christmas Seal sale has been instituted. As this campaign progresses it is expected that the predominant group seeking sanatorium care will be the "minimal" patients, those whose recoveries are almost certain.

Inasmuch as the greatest power of the Christmas Seal sale lies in its educational and consequently preventive faculties, it is in close accord with the fundamental purpose of the welfare work of the State Department of Institutions and Agencies, and the department is very glad to coöperate with and support any activity that is directed toward the health and happiness of the citizens of New Jersey.

Power of Christmas Seals

Ernest D. Easton, Executive Secretary

This is the twenty-second annual Christmas Seal Sale on a national scale; the twenty-third sale, if that sale in Delaware under the leadership of Miss Emily P. Bissell, is counted. (This was local in Delaware and Philadelphia.) During these 22 years \$50,555,256.63 have been collected in the United States; \$2,532,839.84 in New Jersey. This past year the sale for the nation was \$5,461,750.62 and in New Jersey \$393,896.82. This past year nearly two billion seals were printed and distributed for use in the United States and Canada.

In spite of some hue and cry raised each year that hard times would prevent the people from buying seals or that a national election would distract the attention of our people, or that the county is too prosperous for the people to buy, we

have gone ahead each year in New Jersey. At the same time our death rate has slipped down 2 to 10 points each year so that now our death rate from tuberculosis is about one-third what it was 22 years ago.

The first seal sale in Denmark, as well as in Delaware, was used to build sanatoriums. Then some wise person in Maryland developed another slogan—"The ambulance or the fence"—shall we buy an ambulance to carry persons to the hospital after they have tumbled over the cliff or put up a fence on the cliff to prevent them from falling over? Since then the greater portion of our energy and money have gone toward building fences and we do know that not so many as formerly are falling over the cliff.

I shall not attempt to tell you how, by devious ways, we have built fences or arrested the public attention, nor how they have responded to our cry and demanded that hospitals and sanatoriums be provided; that clinics and nurses be secured; that school hygiene with a physical examination be a part of the regular school program; that factories provide adequate safety appliances for the protection of their workers; that homes and apartments consider the amount of air and window space for each occupant in the way that trolley cars and buses give thought to proper ventilation; that the public drinking cup and roller towel be abolished; that spitting on our sidewalks and in public places be considered a misdemeanor; and a host of other so-called reforms that have brought health and happiness to our people.

All of these changes have come about without much of a fight on our part. The users of these little stickers or seals have really done the fighting for us. Every time they put a seal on a letter or package they have put their stamp of approval on the great cause that stamp represents.

Report of the Early Diagnosis Campaign for 1929 and 1930

H. E. Kleinschmidt, M.D.

We are organized primarily to fight tuberculosis, largely through public enlightenment. The Early Diagnosis Campaign, no less than the Seal Campaign, is a means to that end. The educational results are even more intangible—we know only that tens of thousands of persons heard again, in a new setting, the old story of tuberculosis; and other thousands listened to it for the first time. There is no doubt that the campaign helped to build prestige for and confidence in tuberculosis associations, as evidenced by the cooperation of insurance companies, national advertisers, health departments and medical associations.

In 1930, emphasis will be placed on the need not merely of discovering clinical tuberculosis early but of *anticipating* it by searching for evidences of the disease in its seedling form. The seeds of tuberculosis are sown during the early years of life. Later, when the disease ripens into activity, it becomes an object of public concern because then it is obvious. To remind people that the most effective preventive measures should be taken during the period of latency, is the purpose of the new campaign. But, discovering latent tuberculosis in children is also a means of finding active cases, for children are infected only by someone who is discharging tubercle bacilli.

How We Help the Child to Help Himself

Harriet I. Stone.

Supervisor of Nutrition, Newark Public Schools

All public and private health organizations should be interested in knowing what part the schools are playing in the great public health movement, for the schools hold an important place in determining the health status of the future generation.

Health is recognized by the National Education Association as one of the most important phases of education, but much of the health teaching in the past has not been productive of good. A new attitude toward health, and appreciation of it as an experience, is gradually being developed by health and educational leaders throughout the country.

Changes with reference to health education are taking place within our own school system and new plans of work are being developed. Some of the outstanding changes are as follows: the name of the Medical Inspection Department has been changed to Health Education and Service Department; "medical inspectors" have been changed to "school physicians"; the plan of work of the Nutrition Division has been changed to include a large number of children and classroom teachers; and the major emphasis is from the educational rather than from the clinical angle. Nutrition instruction is for all, rather than a segregated few. The health problem child is dealt with as an individual. The specialist advisers are in the schools to help the teachers with the health education program and to give help to those children who do not respond with the group.

Effort is made to get the child to assume some responsibility for his own improvement and to go to the family physician and dentist for medical and dental care.

Nutrition teachers locate in schools the children who were in health camps during the previous summer and keep in touch with them, checking on their progress throughout the year. The serving of milk in the schools is approved primarily as an educational factor. Much is accomplished through individual conference with the children where their individual interests, likes and dislikes, can be considered. New physical health records are being developed. An intensive Schick testing program has been inaugurated. Plans are under way to eliminate duplication of effort of different specialists in the schools. A new health curriculum is being constructed for the public schools which has as its main objective healthy boys and girls.

Detection and Treatment of Tuberculosis in Children

F. Maurice McPhedran

From the Henry Phipps Institute
University of Pennsylvania, Philadelphia

In the effort, by various agencies, to recognize tuberculosis in children before it is so far advanced as to cause symptoms or physical signs, 1 of 2 methods is usually adopted. The first consists in the routine study of all children of a community by physical and x-ray examinations and tuberculin test; which has the incidental advantage that it discovers many cardiac and nontuberculous pulmonary lesions in children who would otherwise not be roentgenographed, but is hampered by its scope, cost and requirements in personnel. The second method attempts to select for examination

those children who are likely to show tuberculous lesions; briefly, those found to react to tuberculin and those known to be living in household contact with sputum-positive tuberculous persons. The latter method has been adopted in Philadelphia guided by experience gained in investigations at the Henry Phipps Institute, and has been used for years in Rathbun's excellent tuberculosis survey in Chataqua County, New York.

All school children whose parents accept the offer are given the tuberculin test, which, like the Schick and Dick tests, is intracutaneous. Other methods, such as von Pirquet's, are demonstrably inaccurate. Most children who have been seriously exposed to infection will react to the first or second dose. It is rare that a child with a significant lesion reacts only to the third. The severity of the reaction does not define the extent or stage of the underlying lesion. An intense reaction may persist for years in a child without a demonstrable lesion, who remains in good health; and a mild reaction has been seen, in rare cases, shortly before the lesion was demonstrable. The tuberculin reaction only reveals children who have been infected and shows the need for further examination.

So great is the significance of household contact with clinical tuberculosis that all children exposed to it require particular care, especially when a patient with positive sputum has remained for months in the family. When such a history is obtainable from a school child it should be verified, when possible, by complete examination and sputum report of the suspected sources of contagion. Questioning school children, however, will not reveal these families with any degree of certainty or completeness, but the records of dispensaries and other agencies for the diagnosis of tuberculosis should afford their names. All children who live or have lived in household contact with sputum-positive tuberculosis persons should have special oversight including at least annual roentgenograms during, at least the high school years. It is highly desirable, though difficult, to carry these examinations on into the early twenties, inasmuch as many young adults develop clinical disease shortly after they leave school.

Temperature, pulse and the height-weight relation should be recorded for every child examined by x-rays. The aim of the physical examination is to supplement the roentgenographic, to complete the diagnostic evidence and to point to further examination, including special films from various angles. The roentgenogram often determines what shall be done with a child. In the absence of symptoms and signs, it is the sole evidence of a lesion and of its progress or retrogression; and the sole reliable evidence of anatomic stability of a lesion after symptoms and signs have subsided. In the present state of our knowledge, the roentgenogram, even with our present imperfect technique, presents the earliest obtainable evidence for early diagnosis, and is our most accurate and immediate record of tuberculosis processes.

Almost every form of tuberculosis can be seen in children. Lesions in infants and young children, and not a few in adolescents, often have acute manifestations clinically. For such cases ambulatory treatment is as inappropriate as for pneumonia or any other disease that immediately threatens life. Indolent lesions occur in young school children, in whom they are chiefly nonapical infiltrations, and sometimes in adolescents. The apical lesions of adolescence, often long remaining latent, are the chief precursors of the tuberculosis of later years. The successful treatment of these constitutes the chief preventive attack upon the most wasteful disease of early adult life.

Responsibility for the Care of Highway Accident Cases in General Hospitals in New Jersey

Emil Frankel, M.D.
Trenton, New Jersey

The total cost of hospital care for highway accident cases in New Jersey was somewhere between \$600,000 and \$650,000 last year and the financial loss to the hospitals amounted to between \$250,000 and \$300,000. The cost of hospital care for highway accident cases in the whole of the United States amounted to between \$15,000,000 and \$16,000,000 last year and the loss to the hospitals was between \$6,000,000 and \$7,000,000.

Persons injured in the highway accidents, who were hospitalized, in New Jersey numbered between 10,000 and 11,000 during 1928; and between 200,000 and 250,000 patients were cared for in general hospitals in the United States as a result of highway accidents in 1928.

These figures are estimates based upon a statewide survey made by the Research Division of the New Jersey State Department of Institutions and Agencies. This survey revealed that to 1781 highway accident patients in 19 general hospitals in New Jersey were rendered bills amounting to \$106,089; of which the hospitals have been able to collect only \$59,530—or 56%—the difference of \$46,559 remaining unpaid; more-over, the majority of the hospitals reporting do not expect to recover even a small portion of the amount unpaid.

Our survey revealed that a little more than $\frac{1}{2}$ of the total 1781 highway patients who were cared for in New Jersey hospitals came from the hospital city or town; about 38% came from New Jersey outside such hospital community, while more than 8% came from 12 other states. It should be noted, however, that in the hospitals located along the main arteries of automobile travel, hospital cases from out of the state numbered more than $\frac{1}{2}$ of the total highway accident cases handled. Some hope for a reduction in the number of hospital cases may be held out through safety education campaigns, through the adoption of adequate safety regulations, and through installation of effective safety devices. Figures on the number of motor vehicle accidents are not encouraging, however, since the number of such accidents apparently is increasing everywhere. In New Jersey, highway accidents reported in 1928 numbered 18,447, this being 26% greater than the number reported in 1927. Moreover, the owners of motor vehicles are constantly increasing in number. The ease with which motor vehicles may be acquired nowadays, even by persons of comparatively moderate means, signifies not only that even greater numbers will be driving automobiles but that the number which might be classed as financially irresponsible, from the standpoint of compensation in highway accident cases, will be increasingly augmented.

An inquiry was directed to more than 50 administrators of general hospitals in New Jersey, asking them to describe their experiences with highway accident cases and to give their recommendations for dealing with the hospital problems arising out of the care of highway accident cases. The answers received resulted in the following recommendations: The person responsible for the accident should assume the hospital bill, and if he does not, some governmental authority should pay; surprisingly few hospitals place any responsibility on the patient who is receiving the treatment. The town or county in which the accident occurs, the town or county of the residence of the

injured, and the state for nonresidents of the county and of the state, are suggested as agencies to assume the financial responsibility for highway accident cases. Compulsory automobile insurance is recommended by nearly every hospital, with the liability insurance to be strictly under state control, and each license to carry with it a liability policy. An organization is suggested similar to the Workmen's Compensation Bureau for the adjudication of claims and of the division of available funds to claimants.

Ethical Hospital Concepts

B. S. Pollak, M. D.,

Superintendent

Hudson County Tuberculosis Hospital
Secaucus, New Jersey

Medical ethics are merely a science of morals; they cannot be expunged, amended or modified. They are a sacred heritage; they have come to us as a result of centuries of practical application; they were a pattern for our forefathers; they have been transmitted from father to son and, to those of us who revere our profession, they will be the bulwark of our lives.

The responsibility of the patient—legal and in every other way—is the responsibility of the physician. Even if the Rosenwald Foundation, the Public Health Institute, the Cornell Clinic, or the Mayo Clinic engage in medical practice, the responsibility for the patient is the responsibility of the doctor or of the doctors who attend him. No matter what system of practice eventually develops in our fair land, doctors are going to do the practicing and carry the responsibility. Without physicians and medical science, such institutions as the great Rockefeller Institute, the university hospitals, the leading medical schools, would be only 4 walls and a lot of apparatus. On the day when economists, merchants, brokers and bankers, and executive secretaries put medicine on a business basis, the heart will go out of it, and the people, unless they too have degenerated, will suffer sadly. The philanthropists and the social workers and the economists must realize that rise in the cost of medical care is a reflection of the increased knowledge that has come to the practice of medicine. The bill of the physician is a small portion of the cost. Even with the most perfect organizations, they will still be costly. The practice of medicine can only be fully understood by those who have lived it. Let us take the press of the country into our confidence; let them know our side of the story, and much of the present misunderstanding will be cleared up. Our hospital lives must be written on pages so that "He who runs, may read" the whole truth and nothing but the truth.

The following fundamentals may bear repetition:

- (1) Let the human element always sway us.
- (2) We must as vigilantly supervise the patient's care, as many seem to supervise the patient's bill.
- (3) Our enthusiastic striving for scientific improvement and experimentation must be guided by a sympathetic consideration of our patients.
- (4) Let the patient be our first consideration; let business always be a secondary matter.
- (5) Let the humanities in medicine be the predominant note—the keynote within the walls of our hospitals.

School Health Department

ALLEN G. IRELAND, M.D.,

Director of Physical and Health Education,
State Department of Public Instruction,
Trenton, N. J.

To the school physicians of New Jersey the writer conveys greetings from the Commissioner of Education, and also takes this opportunity to express heartiest personal regards.

To the officers of the Medical Society of New Jersey who, because of their interest, vision, and coöperation, created this Department of the Journal, this word of recognition and appreciation is recorded as an expression of thanks.

PURPOSE

This Department of the Journal, inaugurated with this issue, was created expressly for the school physicians of the state. It originated in a definite need, since heretofore there has been no ready medium for a quick broadcast of notes on school health activities. The need is particularly imperative at this time in view of the announcement of the State Department of Public Instruction concerning development of a new school health program. With this corner of the Journal dedicated to the exchange of ideas and experiences, it is hoped that revived interest and aroused ingenuity will be the happy result.

THE NEED

Referring again to the need for this common meeting-ground, attention is invited to the fact that for the school physicians, numbering nearly one-third of the licensed practitioners of New Jersey, there has been little opportunity for exchange of professional information and methods relating specifically to the school field. Indeed, with the exception of county meetings and state conventions, points of contact have been wanting; and on those occasions the program usually consists of papers and demonstrations on technical topics of medicine and surgery. The unfortunate angle of the situation is revealed by the fact that the public school represents about 20% of the population of the state, or approximately 780,000 school children and teachers. To safeguard and promote the health of this large block of citizens and prospective citizens, the schools employ in the neighborhood of 1000 physicians. Here, indeed, is a health field of some magnitude. It gives rise to a need for organized endeavor and mutual understanding as well as opportunity for the professional growth of those with whom the responsibility rests. As intimated, it is unfortunate that so little has been done in that direction.

POLICY

All school physicians are invited to contribute to this Department. The only suggestions offered are that contributions be to the point and brief, and that they be confined to useful and practical topics. Beyond that, no hard and fast rules of policy will be imposed. The right to edit and to reject contributions is reserved by the Editor of the Journal.

STATE EDUCATION DEPARTMENT PLANS

In November 1928, the State Department of Public Instruction announced re-organization of the Division of Physical and Health Education and appointment of a "director" in the person of the

writer. These changes were in accord with similar developments taking place throughout the country, and in response to urgent appeals for a comprehensive state program coming from within the state. Evidence points to the inception of a new era for the school health program. It marks the beginning of a period of reconstruction after a decade of pioneering and experimentation. The year was devoted chiefly to a survey of conditions throughout the state, although several constructive projects were started and field service was continued unabated. It seemed necessary to make a rather thorough study of the health program status before attempting extensive revision and expansion. Accordingly, considerable time and effort was given to visitation, observation, and analysis. It is believed that a fair picture of conditions has been obtained and with that knowledge it is possible to proceed intelligently.

The Division of Physical and Health Education has announced the organization of its work along 4 major lines:

- (1) Program construction and promotion.
- (2) Field service.
- (3) Teacher and nurse training.
- (4) Promotional publicity and propaganda.

Two programs are in process of preparation. It is expected they will be completed for preliminary distribution in mimeograph form sometime during the current school year. They are:

(1) Organization and Administration of Health, Safety, and Physical Education.

(2) School Health Program for the Physician, Dentist, and Nurse.

Other programs to follow are: (1) Nutrition. (2) Mental Hygiene. (3) School Dental Program. (4) Course of Study in Health Education. (5) Course of Study in Safety Education. (6) Hygiene of Instruction. (7) Course of Study in Physical Education. (8) School Lunch. (9) School Health Program for the Classroom Teacher.

ORGANIZATION OF SCHOOL NURSES

On November 11, 1929, the State Department of Public Instruction called a meeting at Atlantic City for the school nurses of the state. More than 200 attended, and from every aspect the meeting was regarded as a success. Its purpose was threefold—the business of organization, social, and professional.

The question of an organization for the school nurse was presented and opened for discussion. The result was the election of a committee of 5 whose function it is to decide the manner of organization, purpose, and other details. The outcome will be reported later.

Communications

MEDICAL CHAPTER IN A NEW JERSEY HISTORY

(A letter from the American Historical Society Publication Office, in New York)

The medical profession throughout New Jersey will be interested to know that Professor Irving S. Kull, of the History Department of Rutgers University, who is editor of a forthcoming History of New Jersey, has recognized the peculiar problems presented in medical history and has entrusted that part of his work to Dr. John H. Bradshaw, of Orange, New Jersey. From

the viewpoint of those who know the man and his work, a happier choice could not have been made. Dr. Bradshaw, immediately after his return from the Far East, devoted himself zealously to the research and study necessary to supplement the broad knowledge of his subject that his other literary and historical work had given him. His writing will bear the stamp of authority, and Professor Kull has earned the gratitude of the profession, both by his wise decision to call in a specialist and by his discriminating choice in support thereof. It is expected that the book will appear in February or March.

VALUE OF MILK MINERALS IN DIET

(We are requested by Dr. Richard N. Connolly, Ex-President Essex County Medical Society to publish this as a preliminary announcement of work performed at Rutgers University.—Ed.)

One of the most striking observations that has resulted from the newer point of view of nutrition is that of the identity of the pathology of clinical and experimental rickets. It is, perhaps, quiet impossible to over-emphasize this essential similarity. At the same time it may be worth while to note what may be an equally essential difference.

Experimental rickets is induced by the feeding of a diet which is deficient in phosphorus. Vitamin D or ultraviolet light cures rickets by mobilizing the phosphorus of the organism, which is then laid down together with calcium so that normal bone calcification occurs. In most cases of clinical rickets, the child is receiving a diet which, presumably, contains at least a minimum amount of phosphorus essential to normal bone development. It is, however, a familiar observation that the child, in spite of its higher phosphorus intake, requires, weight for weight, a very much larger dosage of vitamin D to insure either cure from, or protection against, rickets than does the animal in which the dietary rickets has been induced.

As pointed out by Bunge and others, the rather close relationship between the composition of ash of the new-born and the ash of milk, has made milk appear to be the ideal source of mineral elements essential to the normal development of young animals, insofar as the development of bone is concerned.

The most popular and successful treatment of clinical tuberculosis at the present time consists of giving the patient a good chance to rest and at the same time feeding him a diet which contains liberal amounts of milk, cod-liver oil, and tomato juice. The rest is, of course, essential for the sake of giving the body a chance to retain what has been built up, but it is not easy to estimate the exact reasons for the foods which must be given in liberal amounts. It is our opinion that the cod-liver oil and tomato juice are of value for their vitamin content. We are of the opinion that the milk, which is a most important part of the treatment, is of value for entirely different reasons. It is our tentative opinion that the milk is chiefly of value on account of the balanced salt mixture which it contains.

When tuberculosis lesions are healed, the healing process is usually accompanied by formation of a wall of mineral matter about the site of infection. This has the effect of completely separating this infected area from surrounding tissues

and thus prevents spread of the infection. Vitamin D, from some source, such as cod-liver oil, favors deposition of mineral salts in such a situation, but it appears that vitamin D has failed to give the results that might be expected from its use in the treatment of tuberculosis because it is essential to supply a very liberal amount of mineral salts, such as the salts of milk, for deposit about the site of infection. Milk supplies the proper salts but, in order to get enough of the salts, very large quantities of milk must be taken. It is quite possible that whey powder is a better method of supplying the salts of milk than milk itself.

The feeding of sufficient amounts of milk to supply plenty of these mineral elements becomes at times something of a problem, on account of such conditions as milk intolerance. About 2 years ago there was submitted to this laboratory a dry powder made from the whey of milk. This powder represents in a concentration of about 25 times, the solids of milk other than fats and casein. Experiments have brought out that this whey powder is so low in its content of vitamins A and B as to be of negligible value as a source of these vital food factors. The addition of 75 to 100 milligrams of this whey powder to a rachitogenic diet of rachitic rats brings about healing of rickets in from 7 to 10 days. Whey powder contains about 12% of milk minerals. It also contains about 74% of lactose and the remainder appears to be very largely milk proteins other than casein.

We do not know that whey powder is at present used to any great extent in food products and this note is written to call attention to the possibility of its introduction into the American dietary as a valuable source of milk minerals and of milk sugar.

The studies here indicated, and which will later be published in detail, were made possible by the Kraft-Phenix Fellowship in the Department of Research of Rutgers University College of Pharmacy.

Lloyd K. Riggs,
Forest H. Clickner,
William L. Sampson,
Evelyn M. Soffer.

The Woman's Auxiliary

OUR WIVES

George F. Beasley, M.D.,
Lafayette, Ind.

(We are reprinting from the Journal of the Indiana State Medical Association, November, 1929, page 485, a toast that was delivered at a banquet by one of the oldest members of that association; its application being universal.—EDITOR.)

"No member of the body politic occupies such an anomalous position as the doctor's wife. She must combine the assurance and suavity of a trained diplomat with the meekness of an angel. She must be all things to all people, slighting none. She must be capable and have tact, to make each feel that he or she is the chosen one. This equipoise she must carry in season and out.

She must engage in all things for the betterment of her community; in the sewing circle making underwear for the primitive South Sea islander, leading the grand march at the Charity ball, Wed-

nesday night assisting in the mid-week devotional services, Thursday afternoon making a strenuous effort to win the prize at the bridge club, prompt at the services of her church on Sunday morning, in the afternoon teaching the infant class in the suburban Sunday School, a leader in the plays given by the Dramatic Club.

She must be a past-master in the culinary department, an adept with the needle; hence she always is found at the church dinners and bazaars doing her part in drawing the loose change from the pockets of the attending crowd.

Since the right of franchise has been granted, none is more zealous than she, so proved by the last political land slide she helped to put through.

In fact, she must be omnipresent, though at the same time keep her house in order, her children clothed and properly fed, see that her husband is in proper shape to attend to his duties, with shirt and collar immaculate the four-in-hand properly tied, the scarf pin at proper angle, hat brushed and properly creased, clothes brushed, shoes shining and with plenty of clean handkerchiefs. While this is being done she wears a smile.

It has been said: 'One may smile and be a villain,' but that does not apply to the doctor's wife, for she is on the line of the angels. How could we get along without her?

I knew a doctor who, dissatisfied, was granted a divorce in the afternoon, but before night repented and married her again. Another when his first wife died, married her sister. When she passed away, he took another and last of the family, and then he died.

The doctor who has the right kind of a wife has a jewel, one without price. But like all gatherings some queer misfits will get in. In a neighboring city, at an afternoon gathering, one of these misfits was present. Some one said: 'Is there much sickness, Mrs. Esculapius?' 'Oh, yes,' she exclaimed, 'and the doctor says if it keeps up he will get me a new parlor carpet.' Another said, 'If sickness keeps up we are going to get another automobile.' Another said, 'My husband has 12 new medical books, and when he finishes them he will be as smart as the rest of the doctors.'

At a breakfast table, while the husband was sipping his coffee his wife was perusing the society and obituary columns, 'Oh!' exclaimed the wife, 'the poor soul!' 'What's the matter now?' asked the doctor. 'Just listen,' replied the wife. 'Died yesterday morning, Mr. David Howback, leaving a widow and 11 children. The widow is inconsolable, because in all their married life of more than 40 years she never knew him to be angry or use any violent words. What a monotonous life the poor woman has led.'

Who is it that looks after our moral welfare? Our wives.

Who when we are among the many at a promiscuous gathering and who, when we are enjoying a tete-a-tete with a debutante, when it seems as though we were living our youth again, and the warm blood again rushes through our veins and, as we bend, as of yore, to whisper soft words in willing ears, lightly taps our shoulder and with soft but icy tone, bids us to be excused and marches us away, subdued and humble? Our wives.

Who in the hours, so often frequent, when trials, troubles, disappointments, crowd close and bear us down; who is it that in those trying hours speaks cheering words, helping us hold our faith in front of disaster? Our wives.

Who when times are hard, and grateful patients fail to respond with a sufficiency of the filthy lucre

to make the ends easily meet, makes over the last year's hat, remodels the old gown, and comes out as blooming as a rose? Our wives.

Who when the night is cold and stormy, keeps the fires bright, the lunch hot and savory, that the poor boy may be refreshed? Our wives.

Who, when worn and weary; nerves racked for want of rest, bathes our throbbing brow to peaceful slumber? Our wives.

Who, when during the wee small hours the telephone begins its infernal clatter, slips noiselessly down, shuts it off, then proceeds to investigate the financial standing of the patient ere she breaks your slumber? Your wife.

When your first born persists in making your life a burden and the stillly night a pandemonium with his untimely and unearthly yells; who protects your rest by surreptitiously administering a dose to quiet your offspring and maintain peace in the family? Your wife.

Who is it, when you have lingered long at the club where you saw through the bottom of a glass darkly, and on reaching your home—finding the latch key hole missing, you begin a tirade—the door automatically flies open, a small, but firm hand yanks you in before the neighbors are aroused? Your wife.

When morning comes and with it bursting headache, each hair pulling at a different angle, your mouth filled with the old brown taste; who is it that bathes your head with cooling lotions, and with dainty morsel coaxes back your appetite? Your wife.

Who later, when reason has returned, after sending word to the office that you have been taken sick suddenly and unfit for work, sits down by your side, holds your hot feverish hands, and reminds you of the vows and promises made when joined in holy wedlock? Talking thus makes you feel like you were a wretch undone, and that you never again would commit the sin. Who would go through all this but your faithful wife?

In the Civil War I did my part as a medical officer in the navy, attached to the Mississippi squadron. During the last portion of the war I was attached to the flagship Black Hawk. The ward room mess numbered about 50. A few, the older, were married, but the majority, in the early twenties, were single. All were full blooded, full of life, and the milk of human kindness. All remembered—"The girl I left behind." In fact, judging from the amount of mail that came addressed by delicate hands there were a lot of girls that had been left behind. I wonder whether in the late war the girls were as faithful as those of '61 or '65. How those wives and sweethearts cheered us and the memory of them helped pass many a weary hour. Hence this toast always was given:

'Here's to our sweethearts and our wives,
May our sweethearts be our wives,
And our wives always our sweethearts.'

Atlantic County

Reported by Mrs. Maurice Chesler

A regular meeting of the Woman's Auxiliary to the Atlantic County Medical Society was held Friday evening, December 13, at the Chalfonte Hotel, with Mrs. J. T. Beckwith presiding.

This auxiliary is happy to report having contributed 111 Baby Dresses and 111 Baby Blankets to the Maternity Ward of the Atlantic City Hospital, at an expenditure of \$100; the sum of \$150 to the Atlantic City Visiting Nurses and Tuberculosis Association, for the purchase

of necessities. It has also been instrumental in assisting a very aged and distressed couple by contributing \$24 in payment of rent.

In keeping with the holiday spirit, it was unanimously agreed to give \$10 to the Santa Pals of Atlantic City; \$10 for toys to the children at Pine Rest and the Municipal Hospital; \$5 for toys and also 2 large Dupont Fabric Table Covers to the Atlantic City Day Nursery. Christmas entertainment will also be provided for the above mentioned children.

Mrs. Beckwith and her committee are making arrangements for a "Tea" to be given in the near future at which time we hope to have Mrs. Jas. Hunter, President of the State Auxiliary, as guest of honor.

Sympathy was extended to Mrs. Burrows upon the bereavement of her husband, the late Dr. Garfield C. Burrows.

After the meeting the usual social hour followed and the favorite game of bridge was enjoyed.

Those present were: Mrs. J. T. Beckwith, Mrs. Joseph Poland, Mrs. L. A. Wilson, Mrs. Robert A. Bradley, Mrs. Milton S. Ireland, Mrs. E. H. Harvey, Mrs. David Allman, Mrs. Percy Joy, Mrs. Bernard Crane, Mrs. Sidney Rosenblatt, Mrs. Samuel L. Salasin, Mrs. Louis Rosenberg, Mrs. Samuel F. Gorson, Mrs. Daniel Reynor, Mrs. James H. Mason, Mrs. C. Garrabrant, Mrs. Charles E. Ulmer, Mrs. W. Blair Stewart and Mrs. Maurice Chesler.

County Society Reports

ATLANTIC COUNTY

John Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held December 13 at the Chalfonte Hotel. President Joseph Poland in the chair. Minutes of the last meeting were read and approved.

The applications of Drs. William O. Roop and Clarence B. Whims were accepted, after having been passed upon by the Board of Censors.

Dr. W. Blair Stewart, of the Committee on Public Health and Sanitation, presented an interesting and detailed report upon the present status of the Atlantic City Sewage Company.

Dr. William E. Darnall, of the Library Committee, reported progress and the addition of many new editions of great value.

Letters were received by Secretary Marcus and read to the society from the Hudson County Medical Society asking for endorsement and support of Dr. Quigley for the office of Third Vice-President of the State Society; and from the Somerset County Medical Society requesting the same endorsement for Dr. Ely for that office.

After some discussion by Drs. Darnall and Stewart, the following resolution was unanimously adopted: We deprecate this method of seeking office in the state society and decline to take part in such proceedings.

The resignation of Dr. Francis W. Bennett was read, and accepted with regret.

A letter was received from Dr. J. Addison Joy expressing his sincere appreciation of our thoughtfulness during his recent bereavement in the loss of his wife.

A communication was received from Dr. Olin West, Secretary of the American Medical Asso-

ciation, stating that our invitation for the 1931 Annual Meeting of the A. M. A. to be held here would be referred to the Board of Trustees and to the House of Delegates at their next meeting.

Dr. J. Bennett Morrison, Secretary of the Medical Society of New Jersey was present and spoke of the recent meeting in Trenton, of the Secretaries and Reporters of the County Medical Societies, and of the December issue of the Journal, which he described as the best yet published. He called attention particularly to the following items:

"There was an excellent address by Dr. Ross, President-Elect of the New York State Medical Society, and in the discussions and addresses all will find great food for thought. I want to call special attention to the article upon 'group medicine' by Dr. Collins. It seems to me Atlantic City should make a good stride forward in this, for if there is any one place where group medicine is practicable, it is here with the floating population you have. Dr. Collins states that the people will get well far quicker in the hands of a group of men than in the hands of an individual. We are passing through a rapidly changing era, as far as the medical profession is concerned, and we need the closest coöperation.

I was wondering on my way down whether you have any diagnostic clinics in Atlantic City? We have 3 in Newark. Any physician can refer cancer cases for study and radiologic examination. Treatment is given when necessary. The diagnosis and findings are always referred back to the family physician. This is a great step forward for the community. I advise you to study its possibilities, as with such an organization here a great many things can be accomplished."

It was moved and carried that we set aside a page on the minutes in memory of the late Dr. Garfield C. Burrows who was a member of the society in good standing; and that a letter of sympathy be sent to Mrs. Burrows.

The first paper of the evening was read by Dr. Samuel Stalberg.

Case of Acute Mercuric Chloride Poisoning. Treated by the Lambert Method; with Recovery

S. Stalberg, M.D.,
Atlantic City, N. J.

It has been only during the last 10-15 years that treatment of acute mercurial poisoning has been put on a more or less scientific basis. Previous to that time the whole treatment, as given in the leading text-books, consisted of the administration of some albuminous substance, such as the white of egg or milk. Outside of that, as one writer expressed it, the treatment was "really, watching the case until fatal anuria developed". The impression was general that with albumin, mercury forms an insoluble and inert compound. This is entirely erroneous. Every particle of mercury taken into the system, whether taken therapeutically or taken in toxic doses, is converted into an albuminate before it is absorbed, and the albuminate of mercury is highly poisonous and differs from the elemental substance only in that it is not corrosive. The white of egg, or other albuminous substance, saves the tissues of the stomach and intestines by furnishing a protein with which the mercury can combine and thus lose its corrosive action. But, the albuminate of mercury thus formed, being a poison, should be removed as soon as possible by stomach washing.

The modern, eliminative, alkaline and diuretic treatment of acute mercurial poisoning, which was evolved through the work of several investigators but especially by Lambert and Patterson, is briefly as follows:

(1) Give the whites of several eggs, or milk, or both.

(2) Wash out stomach.

(3) Give every other hour 8 oz. of the following mixture: Potass. bitartrate, 1 oz.; sugar, 1 oz.; lactose, 1½ oz.; lemon juice, 1 oz.; boiled water, 16 oz. Milk should be administered 8 oz., every alternate hour.

(4) The drop method of rectal irrigation with a solution of potassium acetate, 1 dram to the pint, given continuously. The amounts of urine secreted under the treatment are very large.

(5) The stomach to be washed out twice daily.

(6) The colon irrigated twice daily, in order to wash out whatever poison has been eliminated in that way.

It is imperative to emphasize the necessity of keeping up treatment with the colonic drip enteroclysis day and night without interruption. When poisoning is not severe a week may be sufficient time for treatment; when large or successive doses have been taken, or when there is a preëxisting kidney lesion, or when treatment begins several days after the poison has been taken, longer periods, even up to 3 weeks, are necessary.

With regard to the whites of eggs, Sollman, of Cleveland, found that whole egg is just as efficacious. Milk is claimed to be in some ways preferable to eggs; it spreads more uniformly and rapidly over the stomach.

Case History. Miss Katherine K., 24, while somewhat under the influence of liquor, swallowed 2 tablets of bichloride of mercury (7½ gr. each) on the evening of February 27, 1928. She was a healthy girl; family and previous personal history, negative. Dr. Shenfeld, who lives in the neighborhood, arrived in about an hour and administered 3 whole eggs and about a quart of milk which the patient soon vomited. She was then taken to the Atlantic City Hospital.

I arrived there while her stomach was being washed out with about 3 quarts of milk and eggs. The washing was colored blue from the tablet dye. Immediately thereafter, I had her put in a private room under the care of a day and night nurse. She complained of a burning sensation in the throat, dryness of mouth, nausea and severe headache; face was flushed, the eyelids puffy, pulse regular but rapid. Some of the latter symptoms were in all probability due to the alcoholism. She was given luminal; gran. eff. soda phosphate, 1 oz. mag. sulph.; an s. s. enema; and a colonic irrigation of 3 quarts of normal saline solution. At 2:30 a. m. she voided 7 oz. somewhat cloudy urine.

The Lambert routine was started at 8 a. m., or about 9 hours after ingestion of the poison. She was given, by mouth, every other hour, 8 oz. potassium bitartrate, sugar, lactose, lemon juice, and water mixture; and 8 oz. milk in the alternate hour. Rectal irrigation with potassium acetate sol. by drop method was given continuously; on the third day there was some backing up, and it was then given every 3 hours, with intervals of 3 hr. rest. The colon was irrigated once or twice daily with normal salt solution. Hot packs to the body were given once or twice daily. Gastric lavage was not done, but copious

emesis was induced once or twice daily with wine of ipecac followed by copious draughts of water. Potassium chlorate and peroxide mouth-washes were used. Magnesium sulphate was occasionally given.

During the first 4 days the symptoms were sore throat; stomatitis; painful, spongy gums; burning in abdomen; colicky pains, at times severe; tympanites; and headache. Both stools and vomitus contained shreds of mucus and were blood streaked. Temperature, pulse and respiration were normal. She voided twice during the first half day, but during the following 2 days did not void spontaneously, and had to be catheterized; 30 oz. and over being obtained at each catheterization; in all likelihood due to distention of the bladder by large amounts of fluid introduced into the system. The daily intake and output was as follows: First day—intake, 135 and output 75 oz.; second day—intake, 108 and output 75 oz.; third day—intake, 88 and output 51 oz.

On the first day, the urine showed specific gravity, 1.017; albumin less than 5 mgm. per cent; innumerable hyaline casts; and 15 pus cells per field. No acetone or diacetic acid. On the following 2 days the specific gravity was 1.010 and 1.015 respectively, but otherwise normal. On the second day the urine was also examined for mercury with negative results. On March 3, or the fifth day after admission; the patient was apparently fully recovered, signed a release, and was discharged; 15 months after the attack, patient was perfectly well.

While the symptoms above mentioned show that there was absorption of the poison in this case, the amount absorbed is unknown. The relatively short duration of the morbid state, however, was in all probability brought about first, by prompt administration of the antidote and evacuation of the stomach contents, and secondly by employment of the Lambert treatment.

SUMMARY

(1) A case of poisoning by 15 gr. mercuric chloride, taken with suicidal intent by a girl under the influence of liquor, and treated by the Lambert method, with recovery.

(2) Immediately following administration of the albuminous antidote and evacuation of the stomach, the Lambert method of treatment, should be employed.

(3) In all cases, regardless of the amount of the drug taken, or the interval elapsed, an attempt at cure by this method should be made.

(4) Blood chemistry studies should be made whenever possible, along with other laboratory observations.

(5) The idea among the laity that mercurial poisoning runs a painless course, should be dispelled.

(6) Some restriction by law should be made affecting the purchase by the laity of toxic mercury compounds, and tablets should be dyed.

Dr. Poland introduced Dr. Riesman as follows: "You all know Dr. Riesman and have all heard of him as a scholar, an author, a teacher and a sage of medicine. It gives me great pleasure to introduce Dr. Riesman, who will speak of "Diseases of the Kidney, Nephritis and Nephrosis". (Promised for publication later in the Journal.)

DISCUSSION

Dr. Scanlon: I have had the pleasure of being one of Dr. Riesman's students and want to express my appreciation of this very interesting discussion of diseases of the kidney, and would ask him to tell me why it is that in some cases of nephritis and hypertension, in spite of marked variations in both the systolic and diastolic pressures, the ratio between them, in other words the pulse pressure remains constant. Such patients seem to live a good many years.

Dr. Davidson: It is very difficult for me to express my appreciation to Dr. Riesman for his very masterful lecture tonight. I had some idea of the modern classifications of diseases of the kidney, knew that there was amyloid disease and knew to look for it in a certain type of case and also knew in acute nephritis the blood pressure was high; we all had some general ideas of these things but did we know why they happened? Now we know better what we are dealing with, and how to treat these cases. I don't think we can quite appreciate at the moment what we have learned here tonight and I want to thank Dr. Riesman for all of us here.

Dr. Kilduffe: I, too, have had the pleasure of being one of Dr. Riesman's students and I have the same comment, it might be a criticism, of his lecture tonight as I had in class: When he was through talking there was never anything left to be said.

Dr. Andrews: I am sure I cannot add anything to what has been said. Dr. Riesman has told us so clearly, in such a few, concise words what a wonderful advance in medicine has been made in a very short time.

I have been particularly interested in the diastolic pressure as compared to the systolic. No one spoke of anything but the systolic a few years ago, nor do they now. Dr. Riesman did not mention a high diastolic pressure, which does not vary under care and which has a very definite prognostic value. He has emphasized the high diastolic pressure remaining up to 150 or 160 in some cases.

Dr. Barbash: I want to ask Dr. Riesman a question about edema. He told us that hypertension was compensatory. Is not edema a compensatory affair, making an effort to dilute the serum in order to maintain a more normal isotonic solution? It has been my experience in these cases that where high chlorides were reduced the edema was reduced considerably.

Dr. Miller: Dr. Riesman said that the etiology of so-called lipid nephrosis, that is that condition in which there is generalized edema, no toxic effects, no enlargement of the heart, no retention of nitrogen, was obscure. I wonder if he will tell us what he knows about diseases of the accessory sinuses as being the cause of most of these cases. In a case of appendicitis where there is afterward an edema, what about the use of diuretics? Are they of much value in those cases of edema that come and go? As I look back, I can think of a number of patients who have outgrown edema.

Dr. Salasin: I want to express my thanks to Dr. Riesman for some things I have learned and some things I have to unlearn. We were taught about kidney diseases so very differently that we have to unlearn these things now, and I want to thank Dr. Riesman for what he has told us tonight.

Dr. Carrington: I would like Dr. Riesman to tell us his opinion of operating when we find albumin and casts in small amounts and some elevation of the blood pressure. Some of these patients come through very well and some do not.

Dr. Stalberg: It has been my privilege to learn from Dr. Riesman both as a student and when in practice in Philadelphia, and this evening I feel as if I have learned more than at any other time. We had all read that there is a modern classification of kidney diseases but this experience this evening will stick in my mind for a long time.

Dr. Riesman spoke about chronic cases of nephritis, and a low protein diet and the skim milk diet. Since milk is a protein should it not be restricted?

Dr. Riesman: With regard to salt and milk diets—I give lots of milk, water, orange juice, cooked cereals, and junket. Dr. Carrington spoke about the cases with a little albumin and a few casts with relation to considering them as operative risks. This does not necessarily mean a nephritis. The condition may be caused by some slight irritation and operative results should be good if the heart can be made to function. Each case is different and must be studied on its own merits. If there is marked nitrogen retention, spinal or local anesthesia are indicated rather than ether. Very important in the practice of medicine and surgery is the cause and amount of functional damage to the kidney and on that basis the anesthesia should be chosen.

Dr. Miller spoke about nephritis in connection with diseases of the sinuses. I want to go on record as saying that not every sinus disease pointed out by the roentgenologist is important. I believe a good deal of surgery is done on sinuses that is not necessary. We do not know enough about the pictures of sinuses really to decide on a mere x-ray plate.

Drs. Curran and Schwemb have made a study of sinuses from x-rays, but a good deal more study is necessary to be sure sinuses are really diseased and not only apparently diseased. There must be more than one report from any one source. There is no question but that sinuses are only second to tonsils in infections.

The prognosis in lipid nephrosis is very good and chronic cases can go on for a long time. With regard to cases with glomerular damage they may be tried on the newer diuretics in smaller doses if they do not yield to other treatment. These are best if combined with acid producing substances. No bad reactions and no hematurias can be recalled. The enormous output of urine in Bright's disease brings up a very interesting point in regard to edema. Edema is a compensatory—almost everything is compensatory now except a new growth—and the blood can supply the edema due to a large extent to the loss of albumin into the urine and leakage of water out into the tissues.

We do not know much about the blood pressure. We do know that high diastolic pressures may be permanent or variable. It is high in hypertension. The source is nearly always renal in origin but there are some cases that cannot be explained on that basis—Grave's disease and exophthalmic goiter. Dr. Scanlon spoke about variations in the blood pressure in hypertension and nephritis. In these cases the walls of the vessels are diseased and the vessels are more sensitive and this sometimes accounts for it.

Dr. Conaway: I think as a still further expression of our appreciation we should give Dr. Riesman a rising vote of thanks.

This was done and the meeting adjourned.

General Staff Atlantic City Hospital

Joseph H. Marcus, M.D., Secrearya

The stated monthly meeting was held in the Nurses' Auditorium of the Atlantic City Hospital November 22, under the presidency of Dr. C. C. Charlton. The scientific program was presented from the Urologic Department.

Dr. Charles Bossert submitted a statistical survey of venereal work performed at the clinic for the period extending from November 1, 1927, to November 1, 1929. Among the interesting figures presented were: number of luetic treatments, 7449; blood Wassermanns, 1880; new cases of specific urethritis, 400. Each case of lues is checked by Wassermann test, and each case of gonorrhea verified by microscopic examination.

Among the interesting cases reported by Dr. Bossert was one of "Transverse Myelitis." The patient was a colored man, aged 20, with history of having contracted gonorrhea at 13 years of age. Consulted his physician on September 4 because of itching rash on his chest. At visits made September 7, 9 and 13, he was given intravenous injections of .45 gm. sulpharsphenamin and after the last injection had an attack of nausea and vomiting; 2 days later, he could neither urinate or defecate and had a staggering gait; he went to his doctor's office that evening and fell through the doorway. Removed to the Atlantic City Hospital, he was treated for transverse myelitis due to arsenic poisoning and is making a slow recovery. There was a mildly positive blood Wassermann after the first injection but 3 negative tests taken later at intervals showed that the blood and spinal fluid had cleared under treatment. He would seem to be another evidence that sulpharsphenamin should not be given intravenously.

Dr. Daniel C. Reyner presented a report analyzing the operative procedures of the Urologic Department for the 2-year period mentioned. There was a total of 136 operations, with 5 deaths, making a mortality rate of 3.6%. Two of these deaths followed prostatectomy; 1 followed an operation for extensive extravasation of urine with rupture of the urethra and complete retention secondary to strictures; 1 followed cystostomy for carcinoma of the bladder; and 1 followed drainage incisions for extensive cellulitis secondary to circumcision in a baby 1 month old.

There were 12 prostatectomies for benign adenomatous enlargement of the prostate; 2 patients of this group were under the age of 60; the others between 70 and 80 years old.

One Caulk punch operation was done for inoperable carcinoma of the prostate, and one for contracture of the bladder neck in a man 85 years old who had 11 years previously undergone prostatectomy by Dr. Hugh Young.

Prostatectomies were performed in 9 cases of acute prostatic abscess; a condition which unless operated upon early is attended by high mortality.

There were 6 suprapubic cystostomies for carcinoma of the bladder; 1 for carcinoma of the prostate; 2 for vesical calculi.

Perineal cystostomies were done for 8 cases of ruptured urethra, with extravasation, secondary to strictures.

Other surgical procedures included: 11 urethrotomies for strictures of the urethra; 3 amputations of the penis for carcinoma; 23 inguinal adenotomies by cautery for suppurative inguinal adenitis; 7 radical inguinal adenectomies; 10 epi-

didymotomies for acute epididymitis complicating gonorrheal infection; 3 operations for varicocele; 5 for hydrocele; 10 peri-urethral abscess incisions; 5 circumcisions; 3 orchidectomies for tuberculosis of the testicle; 4 bilateral vasectomies; 1 resection of the scrotum for elephantiasis.

Dr. M. H. Azilrod presented an elaborate detailed analysis of 663 cystoscopies performed in the Genito-Urinary Clinic. Among the more interesting conditions selected for discussion were: 1 case of timothy hay straw as a foreign body in the bladder; 1 colored boy, aged 12, with multiple strictures of the urethra and the history of gonorrheal infection at the age of 9; a colored child, aged 4, with general miliary tuberculosis and special involvement of the genito-urinary tract.

Dr. C. H. De T. Shivers, chief of the department, discussed these several reports and presented a number of lantern slides demonstrating pathologic specimens, cystoscopic instruments employed, and diagrammatic sketches of the more difficult genito-urinary operations performed. Motion pictures of the Thompson-Walker operation of suprapubic prostatectomy as performed in St. Peter's Hospital, London, were shown on the screen.

Dr. V. Earl Johnson described the employment of spinal anesthesia in this clinic, and spoke of the value of ephedrin as a method of regulating blood pressure.

In the general discussion that followed, Drs. Silvers, Andrews, Salasin, Barbash, Taggart and Senseman participated.

Dr. Robert Kilduffe presented the hospital necropsy report for November, showing a total of 33% necropsies secured.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at the Holy Name Hospital on December 10. Minutes of the last meeting were read and approved.

A letter of thanks for the floral tribute was read from Mrs. Sullivan. Other letters were from Dr. R. G. Perham, on the subject of fee splitting; Somerset County Medical Society on the endorsement of Dr. Lancelot Ely for President of State Society; Hudson County Medical Society on the endorsement of Dr. Frederick J. Quigley; and from Miss Virginia Chetwood, Executive Secretary of the Bergen County Tuberculosis and Health Association, enclosing a check for \$200.

Dr. Sarla gave the Treasurer's report showing a balance of about \$200 in the treasury.

Dr. King reported for the Welfare Committee on the proposition of Harry Boehm to organize a medical credit association. The proposition is for the members of the society to organize a credit bureau and hire him as manager. Dr. Pitkin made a motion that a bulletin of confidential credit information be established in which the doctors will be given a number and their delinquent patients listed. This is to be sent out every 2 or 3 months. After discussion of the whole subject, Dr. Levitas appointed Dr. Pitkin as chairman of the committee to look into the establishment of this letter of credit and the collection agency.

Dr. Hallett submitted a list of nominations of officers for the coming year: President, Edward

W. Clarke; Vice-President, Joseph R. Morrow; Secretary, Spencer T. Snedecor; Treasurer, Michael Sarla; Reporter, Charles Littwin.

Dr. H. B. Wolowitz reported for the Publicity Committee on the present advertising and radio talks.

The application of Dr. Joseph Toal, of Ridgefield, for membership was read. The following were elected to membership: Edgar M. Tennis, of Englewood; Howard M. Meyer, of Hackensack; Sidney I. Franklin, of Englewood; H. B. Wilson, of Hackensack; Harold W. Ryley, of East Rutherford.

The amendments to the By-Laws proposed at the previous meeting were read for the second time.

It was moved that the Secretary send Dr. Payne a letter of sympathy in consideration of his illness.

Dr. Pitkin made the motion that a junior membership be formed with a \$5 or \$10 fee to induce young members to come into the society. This was seconded but afterward Dr. Pitkin consented to refer the matter to the membership committee for study and report.

The scientific program was presented by Dr. Casselman, of the State Department of Health, with a presentation of the "Newer Methods and Drugs Used in the Treatment of Syphilis."

Dr. Charles R. Mitchell, of Paterson, then covered the subject of "Treatment of Gonorrhea in the Male" in a thorough and practical manner.

After some general discussion the meeting was adjourned.

BURLINGTON COUNTY

The Burlington County Medical Society celebrated the centennial anniversary of its founding Wednesday evening, November 20, 1929. A brilliant assemblage of 200 members and guests met in the Community House at Moorestown, at 6:30 p. m. for dinner and an excellent program of entertainment.

At the conclusion of the dinner, the president, Dr. Henry Bauer, of Palmyra, introduced Dr. Richard Anderson, of Burlington, who read a scholarly paper entitled "Physicians of Colonial Days in Burlington County," depicting the lives of the early pioneers in medicine. (This paper was published in the Journal, May, 1929.)

Next on the program was a "medical pageant", participated in by 12 members of the society, who impersonated 12 savants of medical history. Each man represented a returned spirit and gave a concise, meaty résumé of his life, emphasizing his contributions to science. It was a colorful review, in appropriate costumes, of centuries of scientific endeavor, and impressed the audience as no amount of reading could do. The characters appeared in the following order:

Esculapius	Ephraim R. Mulford
Hippocrates	Henry B. Decker
Galen	Robert Imhoff
William Harvey	Roscius I. Downs
John Hunter	Joseph Kuder
Sir Edward Jenner	Joseph Stokes
René Laennec	Marcus W. Newcomb
Crawford W. Long	George T. Tracy
Rudolph Virchow	I. B. Hollingshead
Louis Pasteur	S. Emlen Stokes
Lord Joseph Lister	Daniel F. Remer
Robert Koch	Harold E. Longsdorf

The Honorable Harold B. Wells was the final speaker of the evening and he paid a glowing tribute to the country doctor. Judge Wells, in his own inimitable way, entertained an audience which is always well pleased to find his name on a program.

The guests included the following prominent citizens of Burlington County: the Board of Managers of the Burlington County Hospital, the Hospital Staff and their wives, and the officers of the State Medical Society. Other guests were Hon. William D. Lippincott; Hon. Clifford Powell; Hon. Charles A. Rigg; Charles H. Folwell; Percy B. Lovell; Edward B. Jones; Henry P. Thorn; Hon. Harold B. Wells; Eldridge Johnson; Mrs. James Hunter Jr.; Dr. B. F. Buzby, of Camden; Dr. J. B. Morrison, of Newark; Dr. Henry O. Reik, of Atlantic City; Dr. Elias J. Marsh, of Paterson; Dr. James Hunter, of Westville; Dr. W. Estell Lee; Dr. Thomas Summey; Dr. A. D. Hutchinson, of Trenton; and Dr. Philip Marvel, of Atlantic City.

CAMDEN COUNTY

Robert S. Gamon, M.D., Reporter

The Camden County Medical Society held its regular meeting Tuesday, December 10, at 9 p. m. The society was honored by a visit of President McBride. He gave a short inspiring talk on the aims of the state society and the part to be taken by the component societies. Dr. McBride was most cordially received and was given a vote of thanks for his remarks.

The scientific program of the evening was a symposium on "Secondary Anemia". Dr. Geo. P. Meyer gave a paper on etiology; diagnosis was given by Dr. H. B. Decker; and Dr. T. M. Kain gave a paper on the treatment. Drs. Lee, Lippincott, Shafer and Hummel opened the discussion.

The Monthly Bulletin of the Camden County Society made its first appearance under the direction of Dr. B. Franklin Buzby, secretary. It contained many interesting items and will be published each month and put in the hands of the members one week prior to each meeting. The society has 130 members and approximately 50% are present at each meeting.

Dr. Leonard Roundtree, of the Medical Service of the Mayo Clinic, formerly of Camden, was elected to honorary membership. Dr. Jos. E. Roberts, Jr., was elected censor to fill the unexpired term of the late Dr. Alfred Cramer.

The society voted to pledge its delegates to favor making the reporter a delegate to the state society; the opinion of the members was that inasmuch as each county would be allowed one extra vote that would in no way hamper the mobility of the state society.

ESSEX COUNTY

E. LeRoy Wood, Reporter

The Essex County Medical Society met in the Auditorium of the Academy of Medicine, Newark, Thursday evening, December 12, at 8:45 p. m. After the minutes of the November meeting were read and approved, the President referred to the death that day of Dr. Edward Staehlin, who was President of the Society during 1916.

Dr. Connolly reported on Diphtheria Preven-

tion with further statistics to follow. The following 18 physicians were elected members of the society by unanimous vote: Solomon S. Bauch, William Campbell, Harold K. Dwork, Milton Friedman, Sol J. Fanburg, F. Irving Ganot, Alan O. Godfrey, Samuel B. Greenwood, Robert E. Humphries, Archibald Lyon, Rocco Salvatore Marra, E. Mae McCarroll, Roy L. Mullins, Charles S. Neves, Harry Schreck, Edgar Calvin Seibert, H. Garrett Van Der Veer; James Henry Willson.

The following resolution on Dr. Henry H. Rusby, of Newark, was unanimously adopted:

"When the scientific world, as represented not only in America but also abroad, has, in very signal awards, honored one who is a fellow-citizen, also a distinguished member of our medical profession, it seems appropriate that the Essex County Medical Society should show that his own locality is not behind others in recognizing his worth.

Dr. Henry Hurd Rusby, of Newark, dean of the College of Pharmacy, Columbia University, and an honored physician, having returned from England where he was awarded the Hamburg gold medal for original research in chemistry and natural history (the first American to receive it) and other honors, added to many received before, for his valuable work, we desire to record our appreciation for one whom others describe as "an outstanding scientist, able administrator, capable, honest, independent, persistent, and fearless Christian gentleman"; "an explorer, botanist, pharmaceutical expert, courageous idealist"; "whose service to humanity makes the world better" for us all. This tribute we pay especially because of his sympathetic interest in the ideals and best aims of medicine and practical help often in the scientific and ethical struggles of our organized profession.

To tender to him our warm regards and ardent hopes for continued life, health, and usefulness to the world."

Dr. Pinneo called the attention of those interested to a communication and editorial in the December number of the State Society Journal, as a full statement about our Health & Accident and Automobile Insurance.

Dr. John Osborn Polak was then introduced and made an address, illustrated with lantern slides, which was unusually instructive, interesting and practical, on "Recent Advances in Obstetrics and Gynecology", this being the culmination of this season's campaign for better obstetrics in Essex County. At its conclusion a vote of thanks was given with special fervor.

Newark Beth Israel Hospital Clinical Society

Report submitted through Max Danzis, M.D.

The monthly meeting was held December 4, under chairmanship of Dr. A. E. Parsonnet, and with Dr. M. Singer acting as secretary.

REPORT OF CASES

Dr. Soschin: This is a "Case of Intussusception" from Dr. Comando's service. Child, 6 months old, was admitted to the hospital on September 13 after vomiting of 10 hours' duration. Mother gave an enema, and the return flow was bloody; at the same time vomitus became bloody. On June 25, child was operated on at the Babies' Hospital, but in less than 3 months had a recurrence. I exam-

ined the child and a definite mass could be felt in the upper right quadrant. Temperature 102°. White blood count 13,850. I operated and found free fluid in the peritoneal cavity; many adhesions from the previous operation; ileum quite edematous; appendix with a very short mesentery.

Treatment of intussusception is always operative and should be given as soon as diagnosis is made. Care should be exercised in pre-operative preparation of the patient, and the anesthesia of choice is spinal, in the hands of a competent anesthetist. The lesion is best approached through an upper abdominal incision, since there is much less chance of bowel protrusion, and the intussusception can be reduced by milking the distal bowel with slight traction at the proximal loop. After reduction, the caput coli and terminal ileum may be hooked up by a stitch to the parietal peritoneum, if there happens to be a long mesentery.

DISCUSSION

Dr. A. Heyman urged early operation and suggested a new technic for reducing intussusception by using a barium enema under fluoroscopic guidance.

Dr. Max Singer described a method for prevention of recurrent intussusception, by suturing the superior aspect of the terminal ileum to the medial aspect of the cecum.

Dr. A. Reich advocated the use of spinal anesthesia; in his experience, it has been safe to use in children.

Dr. H. Comando presented a case of "Osteitis Fibrosa Cystica". Female, aged 16, admitted to the hospital May 31, with pain in right hip and inability to bear weight. While attempting to mount the steps of a bus, patient suddenly felt a pulling, painful sensation in the right arm and thigh, and she would have fallen if some one had not caught her. She had rickets in childhood; also diphtheria and whooping cough. Was operated on for appendicitis about 8 months ago. Always limps on right leg.

Examination showed a transverse, irregular fracture of the right femur at junction of the upper and middle thirds, with an outward angulation and a slight displacement of the lower fragment backward; bones showed a worm-eaten appearance with areas of cortical destruction and periosteal proliferation, due to some systemic disease. Examination of left femur did not show any evidence of fracture; bone showed worm-eaten appearance with atrophy.

Patient was put into a Buck's extension but there was no sign of union at any time. Developed a spontaneous fracture in wrist. Wassermann examination negative. We have come to the conclusion that patient has a generalized osteomalacia. Discharged from hospital unimproved.

DISCUSSION

Dr. Polevski: Whenever there is a question in diagnosis between Paget's disease and other conditions, one can use the following as a diagnostic differential point: In Paget's disease the long bones, particularly the tibia, become not only thickened but elongated, and because of that the tibia bows out with marked convexity. This is so typical that a diagnosis can be clinched by this one objective sign.

Dr. H. H. Fischman: In May 1929, I read before this society a paper reporting a case of osteitis deformans then present in our medical wards. Reviewing the literature, I found that the differentiation between that condition and osteitis fib-

rosa was rather vague—in fact many writers used the terms synonymously. And so, even today, the 2 conditions are much confused.

Dr. Comando: The next case I wish to report is one of "Carcinoma of the Colon" in a young woman, 44 years of age. She had a questionable mass in the right lower abdomen. X-ray examination led to diagnosis of carcinoma of the ascending colon just below the hepatic flexure; she had no clinical symptoms of carcinoma. On opening her abdomen there were no signs of any obstruction, so a one-stage resection was done. She made an uneventful recovery and left the hospital in about 3 weeks. This year, 13 months since operation, she had gained over 40 lb. and was apparently well.

It is very rare that one is able to resect the colon in one stage. It is only possible where there is no obstruction.

Dr. E. Parsonnet presented a case of "Carcinoma of Sigmoid". Female, age 36, married, one normal delivery. Last regular period 6 weeks prior to admission. Chief complaint was rectal bleeding and sense of weight in pelvis since delivery 11 years ago. Both symptoms becoming steadily worse, but neither very annoying; the bleeding occurring only occasionally, associated with burning pain in the rectum, and the sense of weight, backache, more or less constant and aggravated by activity. A certain degree of constipation, but no diarrhea or mucous evacuation. No loss of weight.

Vaginally, there was found to be a marked rectocele, slight cystocele, and a slightly lacerated but clean cervix. The fundus was felt to be somewhat boggy, retroverted, and adherent in the cul-de-sac. No masses in either fornix. Rectal examination revealed internal hemorrhoids with fissure in ano. By means of the ordinary straight 6 in. proctoscope, lower rectum was examined and the membrane appeared normal.

The patient was operated upon on September 11. The rectocele was first repaired, the hemorrhoids excised and the fissure in ano incised. Following this, a midline incision was made in the abdominal wall, preparatory to performance of a Gilliam operation and an appendectomy. The appendix was removed in the usual manner and on palpating the fundus of the uterus, the examining hand came in contact with a mobile tumor of the sigmoid, about the size of an egg and firm in consistency, about on the left iliac crest. This was immediately drawn into the wound and easily recognized to be of malignant nature. While waiting for the intestinal instruments to be prepared, the tubes were both resected. The growth involved about 2 in. length of the sigmoid and there was evidence of beginning perforation at the outer mesenteric border, or rather where the mesenteric leaves split to surround the bowel. No metastasis was demonstrable, but there was an induration of the adjacent mesentery which was considered very likely inflammatory. It was deemed moderately safe, in view of the favorable condition of the patient and the extreme mobility of the mass, to perform a resection with an end-to-end anastomosis. The wound was closed without drainage and the patient left the table in very good condition. *Dr. Yaguda* reported that the specimen removed was a gelatinous adenocarcinoma.

The patient was discharged on October 1, the twentieth day postoperative. Subsequently a barium enema has been taken and the report reads as follows: "At present the patient feels very well, has an excellent appetite, and has regular daily evacuations; and I have every reason to hope for a cure, or at least a marked prolongation

of life." This case serves to emphasize once more the time-worn dictum that the individual who comes in search of medical aid is entitled to all the means at our command to establish the right diagnosis. This patient was fortunate in requiring an abdominal incision, without which, I probably would not have recognized the condition and she would now be slowly advancing to the state of incurable malignancy rather than toward what we hope will be a cure, particularly since it is in this type and location of intestinal malignancy that the best prognosis is afforded.

Unfortunately, the symptoms caused by the carcinoma were explainable by the existing pathologic findings, i. e., the retroversion and the hemorrhoids and fissure, thus misleading us and preventing the possibility of an accurate diagnosis. At any rate, in the future we shall safeguard ourselves as much as possible by a roentgenologic study of all cases of incompletely and unsatisfactorily explained rectal bleeding.

Dr. E. M. Finesilver: I would certainly hate to have you go away with the impression that we get such beautiful results with all our cases of carcinoma of the sigmoid. As a matter of fact, given 100 cases of carcinoma of the sigmoid and be they operated upon by a Finney or a Mayo, if the radical one-stage, end-to-end circular enterorrhaphy operation is used, then between 30 and 40 patients will die; either from soiling at the time of or from a leakage of septic material from the suture line a few days after operation. There is no other operative field in the body so fraught with danger or so replete with difficulties as the sigmoid region. Undoubtedly soiling is the most important contributing factor in the high mortality attending end-to-end anastomosis of the large bowel. In a large surgical clinic in Baltimore, where we had the pleasure of working for several years under the leadership of Dr. J. M. T. Finney, these end-to-end, one-stage operations on the sigmoid were considered operations of "necessity" and not of "choice".

Since the time of Billroth and Mikulicz, around 1880 to 1890, surgeon upon surgeon, notably among them Halsted, has experimented with and reported new aseptic operations for end-to-end anastomosis of the sigmoid. This proves that we have as yet found no safe method of one-stage operation, and is itself mute evidence that in most cases they are unsatisfactory. Again, just last July, Morsley reported another method of one-stage, end-to-end anastomosis of the sigmoid, and at this very same meeting, Dr. R. C. Coffey, one of the ablest of the large bowel and rectal operators said in discussion: "Of all sad words of tongue or pen, the saddest are these, 'It might have been'." It is true that the one-stage, end-to-end operation is ideal, but there is nothing that tears the heart strings of the surgeon more in the case of annular carcinoma of the colon than to realize that he has sacrificed his patient to idealism. Idealism in this kind of surgery is the most fatal of all sentiments." Coffey has occasionally performed radical one-stage operations but has come to the same conclusion as ours, that the mortality is too great when compared with the Mikulicz multiple-stage operation. He is convinced that there has never been introduced into surgery a more important principle than the Mikulicz operation; and even if it is true that in this type of case the stay in the hospital is longer than in the one-stage operation it doesn't really matter, when the patient's future is under consideration whether he is in the hospital, 1 week, 3 weeks, or 3 months: "Safety, above all things, should be the first consideration."

Dr. E. Parsonnet also presented a case of "Post-operative Atelectasis". Female, age 40, unmarried. The history and operative procedure are entirely irrelevant in this report except for 1 or 2 points; first, there is no previous history of any pulmonary affection or any immediate pre-operative infection of the respiratory passages; secondly, the operation was supravaginal hysterectomy, and gas-oxygen-ether was administered for about 30 minutes. The immediate postoperative action was entirely without note. On the first day postoperative, I was unable to see the patient, and Dr. Danzis kindly consented to do so for me. He told me that the patient was suffering from a pulmonary complication, probably a collapse of the lung; roentgenograms taken at once confirmed his opinion. The signs and symptoms were those commonly described—cough; respiratory embarrassment; elevated temperature, pulse and respiration; marked cyanosis; flattened and contracted chest wall on the affected side (in this case the left); displacement of the cardiac impulse and sounds to this side and complete absence of breath sound. Repeated x-ray pictures were taken at intervals up to 9 days, showing at first complete collapse of the entire left lung, and gradually increasing aëration to the present normal condition.

Atelectasis is to be primarily differentiated from embolism, which rarely occurs so early, and from pneumonia, which is at times very closely simulated. Unfortunately, collapse is frequently followed by infection, in which case we then have to deal with postoperative pneumonitis. Such a condition, in an extremely transitory form, has no doubt been frequently called "postoperative reaction, but if we take note of it as an entity and realize that it has often been a factor in pulmonary complications of an infectious nature and take steps to avoid it as much as lies within our power, we will lessen the patient's distress, and our own morbidity and mortality rates.

Essex County Pathologic and Anatomic Society

Louis Weiss, M.D., Reporter

The above-named society met at 8.45 p. m., November 29, at the Academy of Medicine, Newark, under the presidency of George F. Olcott, Jr., who at the outset facetiously remarked that he "would like one of the younger men to preside," and called upon Dr. Edward Staehlin. The latter evinced much joy at having the privilege of introducing Dr. Wells P. Eagleton as the speaker of the evening.

Dr. Eagleton stated that life began with the invertebrate animals as a matter of sustenance. He traced this condition through the vertebrates to man, who alone of all vertebrates developed a brain with a spiritual life.

He claimed that the cerebrospinal fluid contained a digestant which ferment has not as yet been discovered. It has phagocytic action. It is not true that all living animal tissue has an innate reparative process? Our object, therefore, should be to stimulate its phagocytic function, to keep it in a normal state, which presages recovery more surely.

Dr. Eagleton mentioned the injection of magnesium sulphate in solution for this purpose, into the veins of the arm and not into the spinal fluid directly, because it causes a disruption and interferes with the phagocytic action of the cerebrospinal fluid. Sajous many years ago showed that injection of normal saline solution stimu-

lates phagocytosis. He wants the injection warmer than the room temperature, to prevent a possible death from a cool injection.

Dr. Eagleton believes that best results will be obtained by hypodermic injections, whatever their indication, if performed subcutaneously or intramuscularly, because by these latter methods the fluid injected will pass first through the tissues as through a strainer and any insoluble impurities present will be arrested at site of the injection and the disposition of them will be comparatively a safe one; either by slow absorption or by encapsulation, or by extrusion by a local external abscess. If these impurities are injected directly into a vein or the spinal fluid, the effect may be problematic. All hypodermic injections, including blood transfusions, are stimulating only; none of them act as food. Nourishment is only possible through the gastro-intestinal system. Every hypodermic injection should be made slowly and carefully. The pulse and blood pressure should be taken before an injection is made. The method of injection should be drop by drop, under low pressure, allowing the tissues to make room for the fluid by stretching and not by tearing; the fingers of one hand should be on the pulse watching the effect upon the patient, which begins with the drop. If the pulse shows a marked irregularity, the needle should be withdrawn and the injection should not be repeated. If this symptom is overlooked, death may sometimes result; due to the overstimulation of a heart unable to withstand further prodding. To assist the heart, injections should be made with the body in a recumbent position.

Not only the fluid injected should be warm, as Dr. Eagleton insists, but the patient's body should be kept warm by clothing, by covers, and by hot drinks. To produce and conserve body heat is a good therapeutic measure. Treat the body right and the body will get rid of the disease. We must be human mechanics, for we have to deal with the human mechanism.

Dr. Eagleton cited a case of epilepsy with a decompression in which magnesium sulphate injections would promptly reduce the intracranial pressure, and prevent an impending attack. That seems to be equally true of normal saline solution and other antitoxin injections. He warned that the glucose content of the cerebrospinal fluid must not be diminished, and its chloride content should not be allowed to increase. An increase of globulins in the cerebrospinal fluid means there is a cellular degeneration going on in its environs. Tuberculous meningitis is difficult to diagnose by an early lumbar puncture. It may show earlier by an occipitobasillary puncture. Yellow cerebrospinal fluid in a septic case means there is blood in the fluid. If it is revealed by a puncture at the base of the skull, it means that small multiple aneurisms are present. This is a serious import.

Dr. Eagleton further avers that the one outstanding symptom of the presence of increased cerebrospinal fluid is papilledema. In that connection he advocated knowledge of the use of the ophthalmoscope by the general practitioner as an aid in diagnosis, and hoped that patients will some day have the ocular fundus photographed as they have other parts of the body radiographed.

Combination of rhinorrhea with injury to the frontal region frequently causes meningitis, in Dr. Eagleton's experience. That should awaken in us an interest in the cause of rhinorrhea, which very often is some form of nasal obstruc-

tion that should be corrected as a preventive of many things—among them meningitis. It is best to operate in case of a depressed frontal bone. If the inner plate is intact no harm has been done and the deformity is corrected. If, however, the dura has been penetrated, meningitis may be averted and life saved by timely intervention.

Dr. Eagleton gave a few simple rules for location of some lesions in the brain. Injury to the frontal convolutions produces mental changes and may be diagnosed by severe headaches and unreliable statements—even falsehoods—by the patient. A toothache or pain in the trigeminal distribution of the face may sometimes mean injury, meningitis, or brain abscess in the temporoparietal region. Nystagmus and stiffness of the neck indicate basilar meningitis.

Septic sore throat may cause a meningitis by absorption of the poison into the reticulo-endothelial system at the base of the brain. Antitonsillectomists should take heed lest they be blamed for their pacifist tendencies toward the ever vulnerable glands, the tonsils and their cousins the adenoids, in the presence of meningitis or other dire causes.

Dr. Eagleton also made an anatomic classification of injuries to the brain with respect to the dura. Hemorrhage from the middle meningeal artery is always *extradural*. Injuries to the sinuses of the brain cause *intradural* hemorrhage. Hemorrhage in the pia-arachnoid membrane or plexus is *subdural*. He does not advise drainage of the cerebrospinal fluid system in the treatment as it makes patient worse. He is not keen on the injections of serum or bile salts into the cerebrospinal fluid. Drugs, in his opinion, are not beneficial.

The meeting was well attended and Dr. Eagleton received a sincere ovation for his comprehensive and instructive lecture, and I believe for his endearing qualities.

Association of Montclair Physicians

The December meeting of the Associated Physicians of Montclair and Vicinity was held on December 20.

Dr. Harold R. Mixsell, of New York City, presented a paper on "Recent Advances in Pediatrics," outlining the more recent developments in treatment and prevention of scarlet fever, diphtheria and measles. The use of B. C. G. for the protection of new-born infants against tuberculous infection, and the use of insulin in pediatrics.

Dr. John D. Lyttle, also of New York City, presented the subject of "Nephritis and Pyuria in Infants and Young Children," calling special attention to the benefits derived from a complete urologic examination of young children who show a persistent pyuria.

Both papers were exceptionally interesting and the members of the society were particularly pleased with the detailed descriptions of therapeutic measures.

The papers were discussed by Dr. Warren Ripley, Oscar Mackridge, Otto Teber, W. S. MacDonald and W. H. Areson.

Dr. E. Starr Judd, of Rochester, Minnesota, will speak at the next meeting on Friday, January 24.

Medical Commission for Maternal Welfare

Walter B. Mount, M.D., Secretary

Dr. Arthur W. Bingham, president of the Essex County Medical Society, is responsible for a "drive for better obstetrics" in this county. As a means toward that end, 6 definite meetings were arranged for the months of November and December, and specially prepared papers were read by such eminent authorities as Drs. Eliot Bishop, of Brooklyn; Richard N. Pierson, of New York; George W. Kosmak, New York; Thomas W. Harvey, Orange; Benjamin P. Watson, Columbia University; Frederick W. Rice, New York; and John Osborn Polak, Brooklyn. It is the first time such an attempt has been made in New Jersey.

At the meeting in Orange, November 19, Dr. Watson spoke on the subject—"Can Our Methods of Obstetric Practice be Improved?"

Mr. Watson reminded his audience of the unenviable position of the United States among nations in the matter of maternal mortality rates and deaths from puerperal septicaemia; these are next to highest in the former and fifth from the highest in the latter. Maternal mortality is tabulated differently in different countries so that the figures may be open to question, but deaths from puerperal septicemia must be almost accurate.

Slides were also shown of the morbidity at the Sloane Hospital. Morbidity was least in patients with no laceration of the perineum and no episiotomy, and increased with extent of the laceration. Also, the morbidity rose as the blood loss increased during labor. Lacerations and hemorrhage are both increased by manual or instrumental intervention during labor. Analgesic drugs and prolonged anesthesia lower resistance and favor hemorrhage. On the basis of these findings, a plea was made for less interference and fewer drugs in normal labor.

Comparison was made with countries like Holland (which has the lowest maternal mortality), the Scandinavian countries, and the British Isles, in all of which the trained midwife plays an important rôle and delivers either many or most of the normal cases. These midwives are trained intensively for a period of 1 year or longer and are skilled and clean. Dr. Watson felt that in this country a new group of women should be trained, called not midwives but "trained nurse obstetric technicians." They would be comparable to the nurse anesthetists who are so valuable to-day, or to the nurse x-ray technicians. These technicians might be trained to deliver normal cases, especially multiparas. The doctor should still be responsible for the important antepartum care, for prognosis as to the character of labor, for conduct of the puerperium, and for the follow-up examinations. He would assume full charge of the abnormal cases and be called in promptly when the normal case became abnormal. Each obstetrician might have more than 1 such skilled technician to take full charge of his normal deliveries. This plan had been used successfully in certain sections of Great Britain, with economic benefit to the physician and with improvement in obstetric morbidity and mortality.

In this country people are going to demand better results. Then legislators will feel they should take action, and the medical profession will be asked to suggest remedies. Dr. Watson's plan is one remedy, and he thought the best. He admitted that the problem is largely an economic

one. Another remedy would be to provide hospital beds for all patients in labor, with medical and nursing staffs sufficient to care for them. This would be very expensive; perhaps impossible. The problem must be considered very seriously and in its broad aspects.

The subject was discussed at some length by Drs. Bingham, Bradshaw, Richard J. Brown, Chamberlain, Freeman, Glass, Thomas W. Harvey, Edward J. Ill, Kessler, Mount, Pannullo and others.

Miss Hazel Corbin, general director of the Maternity Center Association of New York City, gave a very interesting talk on "Maternal Aid" on the afternoon of November 20 at the Academy of Medicine of Northern New Jersey, in Newark, before the Parent-Teacher Association of Essex County. The Woman's Auxiliary and the Medical Commission for Maternal Welfare of the Essex County Medical Society also sponsored the meeting.

Mrs. Franklin J. Clark of Montclair, president of the Parent-Teacher Association of Essex County, presided. On the platform also were those who had helped in arranging the meeting: Mrs. Richard M. Rogers and Mrs. H. Roy Van Ness, Past-President and President, respectively, of the Woman's Auxiliary to the Essex County Medical Society, and Mrs. Elias A. Kanter, Executive Secretary of the Parent-Teacher Association of Essex County. Notices of the meeting had been sent to every local Parent-Teacher Association, to every Woman's Club, and to all superintendents of nurses in Essex County. A large and attentive audience was present.

Dr. Arthur W. Bingham, of East Orange, President of the Essex County Medical Society, was asked to speak first. He outlined the history, purposes, and accomplishments of the Medical Commission for Maternal Welfare of Essex County. A campaign for better obstetrics in Essex County was under way; 3 of 6 meetings had already been held, and this was the only meeting distinctly for those outside the medical and nursing professions. The objects of the Commission were:—(1) to raise standards of maternal care; (2) to coordinate all existing agencies interested in the work; (3) to teach the public the importance of proper prenatal care. A brief outline was given of what the Commission has accomplished in 6 years through its various committees. The importance was stressed of patients reporting very early in pregnancy for examination and advice.

Miss Corbin then gave an interesting and instructive talk, under the title—"Maternal Aid." The aim of all this prenatal care is to secure for every pregnant woman the minimum of mental and physical discomfort, the maximum of mental and physical comfort, and ultimate good results for herself and her baby. It is desirable that she have medical and nursing supervision from the beginning of pregnancy throughout, aseptic care in labor under a skilled obstetrician, and adequate nursing care in the puerperium. A fair proportion of mothers in this country are not getting that care. Statistics of maternal mortality show that this country compares very unfavorably with other countries, but such statistics are not altogether reliable because they are tabulated differently in different countries. However, we cannot but feel chagrined that the United States has next to the highest maternal mortality rate among civilized nations; Chili, only, is worse.

What can be done about this situation? First, we should inform ourselves and other people. Publicity, discussion of the question, advertising, are important. The men should be interested, for they have a responsibility in this matter. Most husbands are very concerned about their wives during pregnancy and labor. The pregnant woman is bored and needs moral support. At the Maternity Center the effort is made to see every husband and tell him the advice given to his wife, so as get his help in carrying it out. The Maternity Center Association started in 1917, when the newspapers would not print words like maternity. Even 2 years later no hospital clinic in New York City was supposed to register and examine patients until they were 7 months pregnant. It is still a problem to get patients to come to the clinic early. For a while in the early years a house to house canvas was made. Then, if good care be given, satisfied patients return in another pregnancy and persuade their friends to come. As time goes on the larger number come themselves, as compared to the number of patients referred by organizations and physicians. What sells prenatal care to the patients are the things that make them comfortable, such as rest for varicose veins, changing a corset for the relief of backache, etc. The nurse goes to the homes, takes the blood pressure, examines the urine and teaches the patient according to a definite set of rules; she also can observe faults and try to correct them, and can help the mother plan for the future months. These visits by the nurse are made in the intervals between visits to the clinic, where the doctor sees the patient. The clinic record and the records of the nurse's visits are all kept on one card.

Do the mothers appreciate this care or do they feel that the organization is intruding? The mothers want it when they know what it is. They are sometimes bashful about applying for it. Two years ago the Maternity Center started a column on the Woman's Page of the Evening Sun, every Saturday. For the "middle class" patients instruction and demonstration classes are held, for which \$5 is charged; a baby doll is bathed and dressed, arrangement of the room demonstrated, etc. Then, if one of these patients has a practical nurse when she goes home from the hospital, she is visited in her home and the points are gone over again.

For 2 years the Center worked in Tioga County, New York. In such a rural community, with scant hospital facilities, the physician is a more important factor than in the city. First, all the doctors were approached and their interest obtained and criticisms invited. For 2 years this work was financed under the provisions of the Sheppard-Towner Act, and then the expenses were assumed by the county.

In this work it is necessary that all keep in mind the general ideal. In New York City it costs the Maternity Center Association \$75 per patient. How much money is a mother's life worth? A price limit cannot be set for adequate maternal care. In no community is adequate maternal care available for every woman at a price she can pay. Lots of people do not realize that money is necessary to have babies. Money is spent for removal of tonsils or for an appendectomy, but pregnancy and labor are thought to be normal and not worth much money. The whole question seems to be largely economic. There are needed more obstetricians, more nurses, more hospital beds. "What Price Mother-

hood" by Miss Brown in June, 1929, Harper's Magazine, was recommended to the audience for reading.

Academy of Medicine of Northern New Jersey, Eye, Ear, Nose and Throat Section

E. LeRoy Wood, Secretary

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey, was called to order by its Chairman, Dr. Frederick J. Wort at 9.15 p. m. Monday, December 9. Following acceptance of minutes of the previous meeting, without correction, the Chairman announced that in December there would be a clinical meeting, and asked several of the members present to present cases. A letter from Dr. Charles Gluck, of Passaic, was read and the Secretary was directed by motion from the floor to thank Dr. Gluck for the interesting communication containing a report of a cured case of carcinoma of the antrum.

Charles E. Vail, B.A., M.D., F.A.C.S., Physician-in-charge of the Presbyterian Mission Hospital and Principal of the Medical School at Miraj, Bombay, India, told the section of some experiences of a "Medical Missionary in India". His vivid verbal description was assisted by excellent stereopticon slides and 2 reels of motion pictures. All the pictures were taken by Dr. Vail himself.

Necessary, as it is, for a medical missionary to travel long distances from home, his experiences are consequently varied and extraordinary, almost defying description. Many different foreign races are encountered whose manners and customs are most interesting. Dr. Vail told all of these things. His hospital of 250 beds is the only one doing major surgery in an area occupied by 5,000,000 people. A similar condition can be visualized if you imagine New York City with one 250-bed hospital. The hospital itself represents a capital expenditure of about \$500,000 and has an annual budget, exclusive of salaries, of \$60,000. An average of about 450 operations are performed each month. The hospital has officially 225 beds but extra beds are often run in on the verandas. Of these 45 to 50 are in private wards and cottages and are usually filled. There is always a waiting list for private rooms. Most of the nearby houses in town are filled with patients and their friends; the hospital has become a great source of income to those living in the town; and the convalescent Home is always full.

"All forms of major and minor operations are performed, besides the purely medical and pathologic work.

Miraj extension work is carried on in its 6 out-station hospitals and dispensaries. At Ashta, just 15 miles from Sangli, our small hospital is at present giving from 1000 to 2000 treatments each month. There is an Indian doctor and a compounder nurse in residence. At Vita, in the Satara district, there is a small hospital with operating room, dispensing room and 8 beds; also a special shed for leper work. Here, too, there is a doctor and a compounder on duty. In Nipani, 24 miles south of Kolhapur, is one of our most successful out-station hospitals. It is a small hospital with a men's and women's ward, small operating room and dispensing room and office. Nipani work reaches west to Chikodi, south to Sankeshwar, north to Kagal and on the

east to the smaller villages. It in turn has 2 out-station dispensaries with graduate compounders in charge. Kodoli in Kolhapur State boasts a small hospital and a separate dispensary. There a doctor and a graduate compounder carry on the work.

The staff doctor and associates in charge in Miraj visit all these dispensaries and hospitals in turn and perform eye operations and minor surgical cases in the dispensary. Crowds gather on these visiting days, for word has previously been sent to neighboring villages. Usually a bazaar day is chosen as a most valuable time for visits. Patients who cannot be taken care of in the smaller dispensaries are sent or brought to the main hospital at Miraj.

To carry out the ideal of Christian medical service in the Indian villages, Sir William Wanless started a medical school in the early days of the hospital. The first class of 4 students has expanded to 2 classes with a present enrolment of 45 students. Entrance requirements are those of the College of Physicians and Surgeons of Bombay, and Miraj graduates go to Bombay for the Government degree of L.C.P.S. We were recognized by Government in 1918. A new class is entered once in 2 years. Up to 1927, 140 students had been graduated from Miraj. These are in large percentage serving in the villages and mission hospitals of India. The school is the only mission school for men medical graduates and is a Union Institution but chiefly in name and in the fact that the students are from all parts of India and from different missions. The finances of the Miraj hospital are taken care of in large part on the field with exception of the missionaries' support and small gifts for Vita Ashta and Nipani dispensaries.

The needs of the hospital are most evident in the Medical School. A new library and science building, new hostel and study halls, are all in the future.

The Nursing Department with its foreign staff of only 3 has a school for women nurses and a compounders and male nurses' class. They report a more advanced type of applicant each year. The nursing school will soon be linked up with the Bombay schools. At present we are affiliated with the Missionary Nursing Association. The students also pass the Government examinations at Poona.

Miraj neighbors have been always most interested in our hospital work. His late Highness Shri Chatrapati Maharaja of Kolhapur used frequently to visit the hospital and would himself bring patients and stand in the operating room to make sure that the operation was performed. His interest was so keen that he, with great difficulty secured the site of the present water tower, anatomic building and bungalows. His gifts to the hospital were frequent, for he realized as a patient the service our hospitals gave to the state. H. H. Shri C. Ravaram Maharaja has also contributed. H. H. the Chief of Sangli, Chief of Miraj Junior, the late Chief Saheb of Jath, Chief of Mudhol and of Jumkhandi, Chief of Ichalkaranji, Chief Saheb of Oundh, and the minor chiefs of the surrounding country have been both friends and patients."

It is a rule of the board of missions that each worker take a 6 weeks' vacation each year; this is generally spent in the highlands. On these occasions there is opportunity for game shooting and sports like golf and tennis. Dr. Vail showed

pictures of many fine examples of large and small game shot by himself. Hunting the tiger and panther was reported a very thrilling sport.

Even the every day rounds of the physicians visiting the sick at outposts and clinics is not devoid of grave dangers. Heavy rain storms appear suddenly with a terrific downfall of water causing the comparatively small brooks to quickly take on the proportions of raging torrents sweeping all before them. A wall of water 4 feet high will suddenly descend on an almost dry river bed, and as these streams have to be forded, there being no bridges, the grave danger of being caught in a flood is apparent. One district is reported to have had a rain fall of 300 inches in 1 month, following which a comparatively small stream was transformed into a deep river 3 miles wide.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The regular monthly meeting of the Gloucester County Medical Society was held at the Woodbury Country Club December 19 at 9 p. m.

The meeting was called to order by Vice-President I. W. Knight; Dr. Duncan Campbell, the newly elected president being unable to be present. The minutes of the previous meeting were read and approved.

The speaker of the evening, Dr. E. J. Klopp, of Philadelphia, talked on "When to Operate and When Not to Operate in Acute Abdominal Conditions." Briefly, Dr. Klopp spoke of the 2 absolute emergencies in surgery—hemorrhage and asphyxia. Very often the patient is so acutely sick that he cannot give an accurate history. The most frequent acute calamity is appendicitis, of which the cardinal symptoms laid down by John B. Murphy some years ago are pain, nausea and vomiting, fever and leukocytosis. If pain is not the first symptom, one should think at once of pyelitis; here fever is first. Rigidity is not always present. If the appendix is postcecal, or in the pelvis, rigidity is not present and a rectal examination should be made to elicit tenderness if the appendix is below the pelvic brim. In deciding when to operate it is necessary to remember that primary disease has always been present and that the symptoms may have been very light and may not have been attributed to the appendix. It is a very good rule to operate at once upon a young person who is suddenly awakened at night with severe pain, nausea and vomiting. In cases of mild onset with pain coming on during daily routine, with not much increase in pulse rate or marked leukocytosis it is not so imperative to operate at once. After the disease has been going on for 48 hours and the pulse is weak and thready and distention is present, perforation has taken place. In recent perforation—operate. In cases where there are symptoms of shock and where the perforation is not recent do not operate. In an obese person with upper abdominal pain it is not so apt to be ulcer as gall-bladder disease or disease of the pancreas. After diagnosis of perforated ulcer is made operation should be done immediately. The results do not depend so much upon what is done as to how soon after perforation one operates, and as to the contents of the stomach. In gall-bladder disease the pain is usually colicky, intermittent and relieved by pressure, and patient changes position freely without aggravating pain. In gall-bladder dis-

ease colic comes first, then the inflammatory changes later. Gall-bladders do not often perforate. Do not forget to examine the reflexes, particularly in cases where there are several scars on the abdomen, and think of the possibility of tabes.

Dr. Henry O. Reik, Editor of the State Journal, was introduced and spoke at length on the activities of his office.

The meeting adjourned to the dining-room where Caterer Proctor had provided a light collation which was greatly enjoyed by all.

Guests present were: Drs. Reik, Ristine, Richardson, Perry, Kline, Clover, Church, Klopp.

Members present were: Drs. Diverty, Hunter, Stout, Knight, Lummis, Sheets, Black, Barrows, Ulmer, Ashcraft, Wood, Fisler, Brewer, Underwood, Hollinshed, Burkett, Downs.

HUDSON COUNTY

Edward G. Waters, M.D., Reporter

At the meeting of the Hudson County Medical Society held on Wednesday, December 4, a symposium on the "Surgical and Medical Aspects of Peptic Ulcer" was read. Dr. Frank Lahey, of Boston, was the first speaker and presented his impressions as a surgeon. Briefly commenting on etiology, Dr. Lahey stressed the inapplicability to man of the experimental production of ulcers, the real etiologic factor still remaining unknown. Diagnosis must be carefully and fully worked out by all known means. Patients presenting symptoms of ulcer then fall into 3 groups: those definitely with ulcer; those who may have it, the so-called indefinite group; and those whom extended diagnostic studies show to be free of ulcer. Dr. Lahey stressed the importance of the association of altered pyloric physiology, hyperperistalsis, retention, high acid, failure of duodenal regurgitation—all accompany pylorospasm, and all medical and surgical treatment is aimed at overcoming that.

The question of when to operate often arises. Don't operate for bleeding; it is almost never necessary to operate immediately for hemorrhage. If the patient bleeds after rigid adherence to medical treatment, then operation is permissible; otherwise it is not. If pyloric obstruction is present, and the obstruction due to cicatricial stenosis, then a gastro-enterostomy is indicated. Surgery is seldom necessary if ulcer symptoms are present.

Commenting on gastric ulcers, Dr. Lahey stated that eroding ulcers of the lesser curvature should be watched 1-3 weeks under careful medical treatment, since this treatment is always safe if the ulcer of the stomach shows signs of healing. The intractable ulcers, or those healing slowly, with blood constantly present in the stools, are to be resected. Those with repeated hemorrhages, without relief; those with hemorrhage but with occupational reasons prohibiting satisfactory medical treatment; those with deficient mentality—are subjected to the surgical procedure of gastric resection. Surgery, Dr. Lahey stressed, is not a substitute for medical treatment.

In summing up, Dr. Lahey stressed accurate diagnosis; thorough medical treatment plus adequate follow-up study and ulcer education; type of operation to be unsettled until the lesion is viewed on the operating table; continued post-operative medical treatment; with recurrence of

symptoms after a quiescent period following operation, suspect gastrojejunal ulcer.

Dr. Crohn, of Mount Sinai Hospital, New York, presented a paper on the "Medical Treatment of Ulcer". Some persons who are insensitive to pain, with few symptoms, may have marked gastric or duodenal pathology. Most individuals whose ulcers perforate are pain insensitive. A high percentage of x-ray diagnoses have spastic duodenal bulb with deformity. The symptoms of ulcer often simulated by the effects of excessive cigarette smoking, especially noticeable nowadays among women. Alcohol has long been recognized as inimical to ulcer recovery.

In treating ulcer, some patients are milk intolerant, as indicated by headache, distention, bad taste in mouth, etc. Here, Smithies diet of starches and cereals is a good substitute. Dr. Crohn showed several charts and statistical studies based on from 20 to 100 cases indicating: (1) The younger the patient, the better the result; with patients over 60, the best results obtained are only fair. (2) Hemorrhage does not materially alter the course of an ulcer, and is seldom fatal, even if recurrent. (3) The immediate results of medical treatment seem good. (4) Late results are often disappointing.

The presentations were well received by a very large audience and numerous questions were asked, and a satisfactory discussion followed.

Clinical Society of North Hudson Hospital

J. Africano, M.D., Reporter

The regular monthly meeting of the Clinical Society was held Tuesday, December 10, with Dr. Henry Broeser acting as chairman. The hospital report for the month of November was read by Dr. Tannert: Total discharges, 300; deaths 26—of which 11 were surgical, 8 medical, 3 pediatric, 3 of new-born and 1 urologic; 4 autopsies during the month.

Dr. Klaus briefly discussed several of the deaths:

(1) An extensive comminuted fracture of the left leg, complicated by septicemia, as proved by blood culture, in spite of high amputation of the extremity.

(2) Second and third degree burns of the extremities and back, caused by gasoline; although the burns were not extensive, the patient was extremely toxic, abdomen was considerably distended at all times, vomiting was continuous and there was partial anuria.

Dr. Luippold, who saw this patient in consultation, ascribed part of the clinical picture to erosions of the gastric mucosa, which is often encountered in extreme toxic effects of burns.

(3) Fracture of the skull with subdural hemorrhage. On admission, the patient was slightly stuporous, but could be aroused. Right pupil was much larger than the left and did not react, an important feature as will be shown later. He showed no other neurologic symptoms and for 7 days made such excellent progress as to be considered out of danger, when there was a sudden convulsion, following which he became quite stuporous and partial paralysis of the right face, arm and leg were noted. A left temporoparietal decompression was done. Tremendous intracranial pressure was relieved by ventricular puncture. No bleeding was found, nor pressure directly over the left hemisphere. Twelve hours later a right subtemporal decompression disclosed

an old subdural hemorrhage over the entire right hemisphere. This was washed out and a small drain inserted. He improved somewhat during the next 12 hours, but died from exhaustion on the third day.

The interesting feature in this case was that the neurologic findings on the right side, clearly indicated a left cerebral lesion, which was not found at the first operation, but at the second operation hemorrhage was found over the right cerebrum. The only indication of a right-sided lesion was the largely dilated right pupil. This sign, a large dilated pupil, seems invaluable, and always means a lesion on the same side, irrespective of any other neurologic symptom that may be present or that may tend to indicate the lesion is possibly on the opposite side. We allowed ourselves to be misguided by the signs so clearly indicating a left-sided lesion.

(4) Fracture of the right ulna and radius, and right tibia and fibula; complicated by hemorrhage which proved at autopsy to be from an old gastric ulcer, though patient had given no previous history of any ulcer. At no time during his stay at the hospital had he any abdominal symptoms. It was noted after the third day that his stools were black, but outside of this and the clinical picture of hemorrhage the man had no signs or symptoms of any gastro-intestinal lesion. Death occurred on the twelfth day, from recurrence of hemorrhage. The question arose whether or not operation should have been performed. The consensus of opinion seemed against surgical intervention, yet where medical treatment was of no avail an operation might have accomplished a cure.

Dr. W. Braunstein stated that the autopsy disclosed an ulcer on the posterior wall of the stomach and called attention to the medicolegal aspect of the case. If the patient had not been autopsied, this would have been pronounced an accidental death, as there were, according to the history, no gastro-intestinal symptoms.

(5) On November 28 this patient was admitted to the pediatric service and seen by Drs. Tidwell and Kerdasha, with history of having been ill for 6 weeks with continuous fever, cough which disappeared and reappeared, and extreme emaciation. Scattered râles were heard over the chest; liver and spleen were moderately enlarged; cervical and inguinal nodes were slightly enlarged. Suspecting an intracapsular empyema, aspiration was performed, but without result. It was necessary to cut down upon a vein, owing to the poor circulation, to get blood for a count, which showed: 4500 W.B.C. and 90% lymphocytes. Drs. Schulman, Miller and Cracco had seen the patient in private before admission to the hospital, and, correlating their histories and findings, arrived at the diagnosis of leukemia; on the basis of swollen glands, enlarged liver and spleen, emaciation, and distinctive blood picture.

Dr. Braunstein, discussing the blood findings, stated the possibilities were primary aplastic anemia and aleukemic leukemia, with the latter as the most probable diagnosis, substantiated by the age of the patient and other concurrent findings.

Typhoid Fever in Children Study of a Series of 13 Cases

Dr. Cracco

We all have observed that typhoid fever is no longer a prevalent disease; recent statistics showing a very definite decrease in morbidity and

mortality of typhoid in the larger cities. This decline, together with frequent atypical cases of typhoid, makes it possible that the disease may be overlooked unless we exercise care. In adults, the disease presents a more or less definite clinical entity; whereas, in children the symptoms may be very misleading.

Thirteen cases of typhoid were admitted to this hospital between July and October, 1929, of which 11 were in children, and 2 in adults. It seemed advisable to separate these children and to study them as a group, hence this paper.

Age Incidence and Epidemiology. The disease occurred between the ages of 2 and 15; 1 case at each year age, and 3 cases at age of 7 years. Percy's series of over 4000 cases of typhoid fever in children up to 12 years of age shows 74% occurring between ages 6 and 12. In our series, 64% of the cases occurred between ages 6 and 12. Five of our patients were boys and 6 girls.

The epidemiology of our series is interesting. Four cases were in one family—4 sisters—and the source was infected milk drunk while vacationing in New York State; incidentally, 4 cases in St. Mary's Hospital were traced to the same source. Two other cases occurred in sisters, but the source here was probably an infected well. The remaining cases could not be definitely traced.

Symptoms at Onset. In our series, an abrupt onset occurred in 72%; Halpern in his series of 67 cases in children, reported sudden onset in 50%. Summarizing the symptoms at onset, we find that headache was the initial symptom in 82% of the cases; fever in 64%; abdominal pain in 54%; vomiting in 54%; diarrhea in 45%; epistaxis in 54%. Malaise, chills and sore throat also occurred at the onset.

Symptoms During Course. Enlargement of the spleen was elicited in all our cases. Rose spots were seen in 8 cases, or 72%. Abdominal tenderness was present in 6, or 54%; tenderness was localized in the R. L. Q. in 3 cases. Abrupt onset of the disease with abdominal pain and tenderness in the R. L. Q., with fever and vomiting at times so closely simulated acute appendicitis that differentiation was difficult. The pulse rate was generally more rapid than is usual with adults; temperature curves show irregularities and variations.

Laboratory Observations. Positive Widal tests in varying dilutions were obtained in 54% of our cases during the first week; in 36% during the second; a total of 90%. Positive blood cultures were obtained in 27% of cases, during the first week at the hospital and in 27% during the second week. Cultures showed the bacilli in the stools more often than in the urine. The urine, in routine examinations, showed no abnormalities other than a trace of albumin and a few W.B.C. Blood was present in the stools in 7 cases. Blood count showed a leukopenia in 72%. In three of the cases, cultures of the stools were persistently positive for *B. typhosus*, although the patients had recovered clinically. One boy had to be hospitalized about 3 months before the necessary 2 successive negative cultures permitted discharge.

Complications. Complications consisted of: 1 case of otitis media; 1 of intestinal hemorrhage, and 1 of meningitis in which a positive culture of paratyphoid A was obtained from the spinal fluid. The latter case was the only fatal one in the group.

DISCUSSION

Dr. Stein cited 2 cases in the pediatric service that were ushered in with symptoms of acute appendicitis, but which after closer study were diagnosed as typhoid fever; one was complicated by pneumonia, the other by meningitis, and a spinal fluid culture showed paratyphoid B. He referred to a recent epidemic at St. Mary's Hospital, a total of 5 cases, in which the infection source was traced to Interstate Park, and Saugerties.

Dr. Tidwell has found that in children the Widal is very early positive; also there is much difficulty in getting negative stools when the patient is about to be discharged; none of the young patients seemed to be very sick, though they ran high temperatures.

Dr. Justin also cited 2 personally observed cases which were either of the mild, abortive type of typhoid fever, or were so-called because of an error in the Widal interpretation. *Dr. D'Acerno* asked if any special treatment had been instituted in this series, and *Dr. Cracco* replied that a selective high caloric diet plus the routine treatment was the rule.

Dr. Kerdasha's experience has been that children who receive as much as 5000-6000 calories daily do much better than those on a low diet.

Dr. Roberts emphasized that the watchword of typhoid fever treatment is prophylaxis, and this means not only vaccination, the efficacy of which has been fully demonstrated, but also guarding against all possible means of contamination of water supplies; referring pointedly to the wanton carelessness of vacationists.

Acute Appendicitis Simulating Typhoid Fever

Dr. Green

L. S., age 13, male, white; admitted on Nov. 3, about 10 p. m. with the chief complaints of pain in the abdomen and vomiting. Tonsillectomy 4 years ago. Father died of Hodgkin's disease 5 years ago.

Onset 4 days previous to admission with abdominal pain, sharp-like in character and at first generalized, but became localized in right lower quadrant on the following day; vomited many times after the onset of the pain; several cathartics were taken during the first 2 days, although there had been diarrhea for about 4 days; stools free of blood and of normal color. The lips dry and cracked; herpes labialis present; tongue moist and pink; lungs are essentially clear; heart sounds normal; abdomen soft, no rigidity present, but generalized tenderness with marked rebound tenderness in the R. L. Q. Temperature on admission 100.4°, pulse 72, resp. 18. Blood count on admission: Hb. 85%; W. B. C. 8600; polys. 71%; lymphocytes 18%; mononuclears 11%.

The absence of any acute symptoms and the normal blood count did not warrant an immediate laparotomy, and it was decided to wait until morning. A blood count in the morning showed: W. B. C. 6050; polys. 56%; lymphocytes 42%. The temperature rose to 101.8°. Examination of the abdomen revealed no distention, but marked tenderness in the R. L. Q. The diagnosis of acute appendicitis was then made. In the meantime a Widal was reported as positive.

At operation the appendix was found to be acutely inflamed. It measured about 5 in. in length; tip was markedly engorged, globular in shape, and covered with a fibrinous exudate; entire appendix was quite succulent, edematous,

and congested; slight amount of serous fluid in the pelvis. Microscopic examination confirmed the diagnosis of acute appendicitis. Recovery was rapid but on fifth day postoperative another Widal test was positive. Blood cultures, and cultures of the urine and feces were negative for typhoid bacilli. The patient was discharged as cured 13 days following operation. The positive Widals could not be explained. There was no history of previous typhoid infection, nor of inoculation against typhoid. The excreta of all the members of the family were examined by the town physician, but no carriers could be found.

DISCUSSION

Dr. Klaus stated that in his opinion it would have been a grave mistake not to have operated, as he regarded this case as primarily one of appendicitis.

Dr. D'Acerno, on the other hand, believed the case to be one primarily of typhoid fever, with secondary appendiceal localization, on the basis of the leukopenia, positive Widal, and the temperature.

Dr. Luippold pointed out that the real confirmatory test of typhoid fever is a positive blood culture, which was not obtained here; and the clinical course was very typical of a mild appendicitis.

Dr. Brandenburg cited a similar case with typical appendiceal features and a positive Widal, where, after operation the temperature dropped to normal within 3 days, and remained normal.

Dr. Tannert suggested the possibility of a typhoid bacillus appendicitis.

Dr. Tyndall stated that in a poorly developed child the blood picture would become complicated; he was inclined to favor the typhoid appendicitis suggestion, and a culture from the appendix would settle the question.

Dr. Klaus stated in conclusion that although the laboratory findings in this case suggested a typhoid infection, the clinical picture was one distinctly of appendicitis, and in spite of the facts brought out in the discussion suggesting that this case may have been one of typhoid fever the pathologic finding at operation eliminated at once the diagnosis of typhoid fever; likewise the post-operative course in this case and the subsequent laboratory findings eliminated any question of typhoid infection.

Vesicocervical Fistula

Dr. Roberts

Mrs. D. F., aged 42, para VII, delivered by podalic version April 6, 1929, after unsuccessful use of Killian forceps, was readmitted to the hospital September 23, with a diagnosis of vesicovaginal fistula. Inspection failed to reveal that until the bladder was filled to capacity with methylene blue solution and a slight trickle was found coming down from within the cervical canal. Cystoscopic examination revealed a minute puncture midway between the ureteral openings. Fulguration was tried, and on further vaginal examination it was found that a blanched area was visible just within the cervix uteri. This stamped the condition as a Vesicocervical fistula.

After allowing 10 days to elapse, during which time the patient was left in bed with retention catheter in the bladder, the fistula was still unhealed. We would gladly have waited a month or so before further procedures, but the patient was so insistent that we decided to operate. The

operation was extremely difficult. Because of adhesions within the pelvis it was impossible to pull the cervix into view and the vaginal mucosa was stripped from the cervix with difficulty and tore easily. Finally, when the bladder was mobilized it was impossible to find the fistula until a sound was passed from within outward. A fine purse-string suture, with inversion of the edges, and a second row of interrupted reinforcing sutures closed the fistula. Operation was finished in the usual manner for a cystocele repair, and there followed rapid and uneventful recovery and cure.

Radium in the Treatment of Cancer of the Cervix; A Preliminary Report

Dr. A. Schulman

Radiation is a really helpful means of treating many gynecologic conditions, but it is not a panacea for all lesions. In spite of very encouraging statistics from various radium institutes in London, Paris, and Stockholm, many continental gynecologists still insist on radical panhysterectomy as the method of choice in treatment of cancer of the cervix. However, in the United States radium has been adopted as the treatment of choice for carcinoma of the cervix uteri.

I am presenting a series of 7 cases which I have radiated during the past 20 months. Of course it is impossible to draw definite statistical conclusions from so few cases and for so short a period, but temporary conclusions may be drawn.

There are various methods of applying radium; the Europeans use the radium salt (sulphate, chloride or bromide), while Americans use the emanations obtained by the action of an acid on the salt, the resultant gas being collected under pressure in capillary tubes, and these used in the same manner as the salt itself.

In our series, a radon capsule and gold seeds containing the emanations were used, after preliminary cutting away of the growth by means of the electric scalpel. The capsule was placed in the cervical canal, or in the uterus, for a varying length of time according to the growth, and the seeds were imbedded in the cavity of the cervix and left there. Of course, the amount of radiation used varied; the seeds were implanted about 1 cm. apart and the strength and the number of seeds used depended upon the case; however, the number of millicurie hours used varied from 2500 to 8000.

The results obtained were: temporarily cured, 1; recurrence, 1; death, 1, too recently treated to permit of report.

Some conclusions drawn: (1) Radium is the most efficient therapeutic agent in treating cancer of the cervix. (2) Although I have never personally used any other method, from observation, I think that the capsule and screened seeds constitute the method of choice; they are cheaper, the length of convalescence is shortened, and they can be inserted more easily; there is also constant radiation for 1 month, which takes care of any of the cells not acted upon by the capsule. (3) Hopeless cancer cases are not candidates for radium as a cure, but severe symptoms can be relieved temporarily, and lives prolonged.

Carcinoma of the Cervix

Dr. Roberts

Mrs. M. A., age 32, was seen early in October with a history of having had pelvic abscess opened in St. Mary's Hospital in November, 1928. For the 12 months she had been bleeding continually, and intercourse always resulted in a severe hemorrhage lasting 3-5 days. Loss of weight amounted to 30 lb. Vaginal examination revealed a cauliflower mass about the size of a small lemon, which bled freely, but because of tenderness bimanual examination was impossible.

A biopsy on October 8 brought a report of squamous cell carcinoma. Two days later, under gas-oxygen anesthesia, with the aid of the electro-surgical knife, and with the loss of very little blood, the entire mass, with the cervix and a funnel-shaped section of the fundus proper, was removed and 14 radon platinum needles were implanted.

The following day temperature rose to 103°, followed by 104° a day later, and continued to fluctuate between 101° to 104° daily. Removed needles at the end of 8 days, when examination revealed a bulging in the cul-de-sac and on the following day a colpotomy was performed, with release of a great quantity of pus. From then on, recovery was rapid and at the end of 14 days the patient was discharged.

Ligneous Inflammation of the Appendix and Cecum with Intestinal Hemorrhages

Dr. Luippold

M. J., white, male, age 49, mill foreman, entered hospital November 14, after having had a severe hemorrhage while in bed. Family history negative. Past history: typhoid at 8 years of age, otherwise negative. Never indulged in alcohol, even in moderation, but smoked moderately. Has suffered from occasional attacks of diarrhea for the past 12 years, always occurring or being provoked when he was under nervous tension or taxed physically, and always accompanied by more or less bleeding. While at work on November 9, he was suddenly seized by diarrhea and noticed considerable bleeding from the bowels; was brought home and went to bed. On November 11, while still in bed, there was a repetition of the bleeding, worse than before, and he was brought to the hospital. Claims he never had any digestive disturbance, sensitiveness nor pain in the abdomen.

Blood showed nothing but a secondary anemia. Wassermann negative. Stool examination negative for parasites, but contained bright red blood for the first few days, then the stools were dark and tarry. X-ray examination disclosed a defect of the cecum. The appendix was large. Proctoscopic and sigmoidoscopic examinations proved negative. Was given 2 transfusions, after each of which his strength and color improved, but, in spite of this, hemorrhages recurred to such an appalling degree that it was deemed justifiable to make an exploratory laparotomy before his progressively weakening condition made this dangerous or impossible.

Operation performed on November 23 revealed appendix which was markedly edematous and thickened, containing scar tissue, probably the site of a former ulcerated area; the appendix was removed. Its lumen contained an abundance of

yellow-brownish, offensive feces. The entire cecum for about 8 in. was enormously edematous and infiltrated; the serous surface was markedly injected and hyperemic; mesocolon adjacent to the cecum was likewise edematous. Above the cecum, the ascending colon was normal. The terminal 3 feet of the ileum were bluish as though containing blood within the lumen; above this the intestines appeared normal and without apparent blood contents. The stomach, liver and gall-bladder were normal.

Of especial interest in this case was association of the three features: the intestinal hemorrhages, the appendicitis, and the unusual picture of thickened, inflammatory cecum. This woody, indurative condition described as "ligneous" inflammation was probably the result of repeated attacks of subacute appendicitis and cecal inflammation. Whether the hemorrhages came from ulcerations, from within the cecum alone (which appeared most likely), or in association with a general chronic enterocolitis, could not be ascertained. Three alternatives presented themselves: The cecal condition was secondary to the appendicitis; cecum may have been the special point of predilection for chronic enterocolitis; or, there may have been an association of the 2 conditions, in which case it would be an interesting academic question whether the infections were of a different or of the same type. It was believed that the appendix was the primary focus of infection in this case, and that with its removal, the cecum would in time be restored to comparative normalcy with cessation of the hemorrhages. It seems apparent that this conclusion is correct, for at the last report the patient is steadily convalescing and has had a total disappearance of the hemorrhages for 2 weeks.

DISCUSSION

Dr. Sweeney cited a somewhat similar case as regards symptoms, and at operation found the seat of the trouble in the ascending colon near the hepatic flexure; a section taken of the colon which was suspected of being cancerous was returned by the pathologist as chronic inflammation.

Dr. Lange noted diverticulitis is a rather frequent condition, especially in cases with abdominal pain in the left lower quadrant, and believes that the condition is not diagnosed as frequently as it should be; he cited one case that cleared up after operation.

Clinical Conference Bayonne Hospital

Maurice Shapiro, M. D., Reporter

The regular monthly Clinical Conference of the Bayonne Hospital was held Monday, November 9, at 9 p. m. Meeting was called to order by Dr. Donohue, Chairman. Dr. Fifer reported the following cases from Dr. Pinkerton's service: *Case 1.* Female, aged 24, married 4 years; 2 children living; admitted to hospital April 10, discharged April 27. On admission gave a history of nausea and dizziness of 1 yr. duration; especially when riding in a car or bus. Examination showed a large mass in abdomen, freely movable. Operation by Dr. Donohue. No mass found, but ovaries were cystic. They were punctured and abdomen closed up.

In the latter part of September patient was again admitted, with similar symptoms; examination showed a large mass in abdomen freely movable. Blood picture was negative. Dr. Pinkerton, who operated, could at first find nothing definite, the mass having disappeared, but at the lower surface of the liver his hand felt a mass which he traced back, and lifted out a very large spleen with a long twisted pedicle. Removed same and closed up. Patient made an uneventful recovery.

DISCUSSION

Dr. Pinkerton said he was puzzled at the disappearance of the mass. Since nothing was found at the first operation, his opinion is that when the patient was in a recumbent position and abdomen flaccid from anesthesia, the mass dropped back to posterior part of the abdominal cavity.

Dr. Donohue said he also was puzzled at the first operation by disappearance of the mass. He found the lower abdomen filled with a gelatinous substance.

Dr. Frank, who on each occasion had sent the patient to the hospital, said he had diagnosed an enlarged ovary, probably cystic and with a long pedicle.

Dr. Mass said, as to the blood picture, that in Banti's Disease there is a definite blood picture. With the present knowledge of function of the spleen when enlarged the blood picture is not definite.

Case 2. Baby, 8 months old. Private case of Dr. Pinkerton. Mother called up during office hours and told him that the baby was crying, bowels had not moved, abdomen was distended, passed blood and mucus without any feces. He made a tentative diagnosis of intussusception. When he called that evening an enema had been given; child's abdomen appeared normal; no fever; was resting comfortably. Next morning there was abdominal distention and tumefaction palpable both in abdomen and by rectum, localized in epigastrium. On admission, temp. 105.8°; pulse feeble; urine negative; blood count 10,100 leukocytes; polymorphonuclears 69%. Radiogram after barium enema showed obstruction in colon. Diagnosis was intussusception.

Operation: Found ileum had intussuscepted into cecum and descending colon. Reduced the intussusception. Child is still in the hospital; normal temperature, normal stool and making an uneventful recovery.

Case 3. Female, 39 years old, admitted October 19, died October 21. History of being ill at home for 4 days, with sudden abdominal pain, nausea and vomiting, which continued and pains became more intensified. No bowel movement for several days. On admission patient was markedly prostrated. Examination disclosed marked distention of abdomen with large mass palpable in left lower quadrant. Lungs negative. Pulse rapid and weak. Had been operated upon 4 years prior to present illness for ectopic pregnancy. Temperature 103°, dropped to 101° and then up to 104°. Pulse 120. Diagnosis, pre-operative, was intestinal obstruction and adhesions.

Operation: Multiple adhesions of intestines; 1 loop of large intestine gangrenous. Colostomy performed. Patient expired on following day.

DISCUSSION

Dr. Pinkerton remarked that there was nothing unusual in this case. He expressed the opinion that the volvulus was due to postoperative ad-

hesions and that he had never seen so many. It was his belief that the adhesions were caused by organizing blood clots.

Dr. Ferenczi reported several cases.

Case 1. Boy, aged 15, white. Admitted September 17, died October 3. Present illness started 2 weeks prior to admission, with pain in right shoulder, followed by edema of both ankles, which later extended up both legs. Dyspnea on the least exertion. There was edema extending to scrotum and penis. Temperature 98.4°; maximum rise was 100°. Pulse range 90 to 100. Urine analysis showed traces of albumin. Blood examination negative. Diagnosis, acute endocarditis and rheumatism.

Case 2. Male, aged 36, colored, admitted September 20, died October 14. Diagnosis carcinoma of cheek. Present illness began 4 weeks prior to admission, when the patient experienced general pains of bones of body. Breathless on slight exertion, with palpitation; complaining of malaise, chills and fever; had occasional cough, which was productive of watery mucoid sputum, negative for tuberculosis. Blood Wassermann and blood culture negative. Urinalysis showed albumin 2 plus, specific gravity 1.020. Biopsy of specimen taken from mucous membrane surrounding the growth showed no evidence of malignancy. Size of growth in cheek was about 1½ in. diameter. Glands present in neck. Body emaciated markedly. During the last week the patient became irrational and progressively weaker.

Case 3. Female, aged 37, white, admitted October 14, died October 16. Diagnosis, septicemia. Ill for 3 weeks prior to admission with inflamed mouth; condition resembling a Vincent's angina. Extensive excoriation of external genitalia and purulent discharge from vagina. Personal hygiene very poor. Patient unable to open mouth to take food.

Laboratory findings from mouth showed: Many short chain streptococci; few pus cells; many short rod bacilli; Gram-negative and positive. Findings in vulva; many pus cells; very many Gram-negative and positive diplococci intra and extracellular. Temperature range 101°-103.6°. Acute delirium on the last day. In consultation Drs. Tepper and Shapiro thought it had the appearance of gonorrhea of the mouth. Mead reports 16 cases of Neisser infection of the mouth.

Case 4. Male, age 55, white, admitted September 20, died October 15. Diagnosis, acute alcoholism and hypostatic pneumonia. Was brought to hospital by the police in an unconscious condition, with a history of alcoholic debauches lasting weeks at times. Died 25 days later.

Case 5. Male, aged 44, admitted October 29, died October 30. Diagnosis, chronic myocarditis, chronic nephritis, asthmatic complication. Recurrent attacks of dyspnea together with rise in temperature. Edema general. Urinalysis: albumin 3 plus, granular casts, specific gravity 1.022.

Case 6. Male, aged 57, white, admitted October 29, died October 31. Diagnosis, diabetes acidosis complicated by shock from burn. About 1 week prior to admission patient was burned about back, right forearm and leg. He had been suffering from diabetes for some time and was being treated for same by his physician. His condition became more serious and he was sent to the hospital. When admitted he was extremely weak and stuporous. This was followed by a

coma. Laboratory report, blood sugar 222; urine showed albumin in large quantities in both specimens; urinary sugar was 1.5 and 1.8; acetone plus 2; in the last specimen of urine diastetic acid was present, and also a few hyaline casts. Intravenous injection of 500 c.c. saline, 5% glucose, and 30 units of insulin; repeated that day. A marked improvement was noticed after both injections. The next day a hypodermoclysis of 500 c.c. of saline was given.

Dr. Brocke reported "A Case of Pyloric Ulcer." Male, white, aged 45. For many years severe indigestion accompanied with severe vomiting and many hemorrhages, hematemesis, severe prostration, secondary anemia, tarry stools, loss of weight and strength. Illness increasing during the past 5 years; prior to that time worked as a boiler-maker, but for the past few years had not been able to work except occasionally at light jobs. In the early part of his illness attacks came on periodically and were relieved by food and soda. During the past year he developed retention, vomiting and other symptoms of pyloric obstruction; frequent hemorrhages and tarry stools. He entered the hospital suffering with gastric bleeding and considerable shock, and was treated symptomatically; rest in bed, ice-cap over epigastrium, rest of the digestive tract, rectal administration of fluids. This was followed by a proper ulcer diet. Radiogram of the gastrointestinal tract showed pyloric obstruction, possibly malignancy. After several weeks he was again x-rayed and fluoroscoped, disclosing pyloric obstruction due to extensive ulcer. Operation was advised. Gastro-enterostomy disclosed, extensive adhesions of the omentum to the lower abdominal wall, result of a previous appendectomy performed several years ago. This required ligation and removal of considerable omentum before one could become oriented. The usual operation, with proper drainage of a dilated stomach was performed. Owing to size of the ulcer, which involved most of the pylorus and lesser curvature for about 1½ in., it was decided not to remove or over-sew the ulcerated area which appeared healed and did not suggest carcinoma.

Because marginal ulcers have followed gastrojejunostomy, most operators are not performing gastric resections in this type of case, and it is in pyloric obstruction of this type that the conservative operation gives the best permanent result. Pyloroplasty, or the newer operation of Deaver, consisting of removal of the anterior portion of the pyloric sphincter, could not be done, owing to location of the ulcer. This also held true for the Balfour cautery excision.

So far the patient has convalesced nicely and, although it is too soon to prognosticate, history and operative findings warrant the feeling that without operation this man would have continued as an invalid and it would have been but a short time before the syndrome peculiar to this condition would have recurred.

Machaon Medical Club

C. W. Winchell, M.D., Reporter

The Machaon Medical Club of Hudson County met December 11 at 9 p. m. in the Carteret Club of Jersey City to hear Dr. Julius Levy, Consultant to the New Jersey Bureau of Child Hygiene, speak on "Prevention of Infant and Maternal

Mortality". Dr. Levy reviewed the past 4 years of progress in saving the lives of infants, and indicated the work yet to be done by showing wherein improvement may be sought. He praised the work being done in Jersey City, where the local authorities coöperate closely with the State Bureau of Child Hygiene.

The talk was illustrated with lantern slides, and Dr. Winchell, who is the President of the Hudson County Ciné Club, showed an appropriate motion picture made with amateur equipment by Dr. Levy.

The following attended the dinner as guests of Dr. J. Morgan Holloway: Donald Miner, President of the Machaon Club; Clarence Winchell, Secretary; L. A. Opdyke, Gordon K. Dickinson, Finkelstein, Hugh M. White, Julius Levy, William L. Williamson, C. P. Opdyke, Henry V. Broeser, J. Morgan Holloway, F. C. Shipman, Robert B. Nattrass, Theodore H. Lemmerz, Chris. H. Mersheimer, and Edward G. Waters.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The annual meeting of the Mercer County Medical Society was held on December 11 in the Carteret Club, with President Seely in the chair.

This meeting being for election of officers and the adoption of revised by-laws, no scientific program had been arranged.

Dr. H. R. North, treasurer, presented his report for the year, which was most encouraging, showed a very substantial balance and indicated a well paid-up membership.

Drs. C. W. Carroll, H. C. Cox, J. R. Pierson, A. F. Mariconi, James A. Murphy and J. N. Zimskind were elected active members, and Drs. E. J. Elias, H. J. Schroeder, A. J. Sekerak, P. J. Warter as associate members. The transfer of Dr. Ellen C. Potter from Passaic County was read and received.

The following officers were regularly elected for the ensuing year: President, J. S. Vanneman; Vice-President, Nathan Swern; Treasurer, H. R. North; Secretary, A. D. Hutchinson; Member of the Board of Censors, R. B. Seely; Member of the Nominating Committee, J. J. McGuire; Alternate, C. F. Adams.

Honorary Members—Wm. S. MacLaren and Elston H. Bergen, of Princeton.

Delegates for 3 years—J. J. McGuire, C. F. Adams, D. L. Haggerty; for 2 years—M. W. Reddan, R. B. Seeley, D. B. Ackley; for 1 year—J. S. Vanneman, H. R. North, A. D. Hutchinson.

Alternates—N. B. Oliphant, H. D. Bellis, H. A. Cotton; Nathan Swern, A. D. Summers, J. M. Schildkraut, C. R. Sista, J. F. Possel, B. D. Lavine.

Communications from Hudson and Somerset Counties, relative to candidates for third vice-president were read and referred to the member of the Nominating Committee, Dr. J. J. McGuire.

The President appointed Drs. C. C. Chianese, C. R. Sista and R. J. Cottone as a committee to draw resolutions on the death of Dr. Raffaele Pantaleone.

Dr. F. G. Scammell, chairman of the committee appointed to revise the by-laws, read the several sections as revised and with few changes and modifications the by-laws were adopted.

Resolutions

Dr. Raffaele Pantaleone, dean of Italian physicians, died at his home, 504 Hamilton Avenue Trenton, December 3, 1929. Born in Italy in 1871, he studied medicine at the University of Rome, and came to this country in 1906, being the first Italian physician to maintain an office in the city of Trenton.

Dr. Pantaleone was a keen student of medicine and was held in high esteem by the medical fraternity; possessed of a taste for literature and spending much of his time in study of the Italian writers, he was also actively interested in the affairs of the community and endeared himself to a large circle of friends by his gracious manner.

Dr. Pantaleone was a member of the Mercer County Medical Society, Medical Society of New Jersey, as well as of several local and national Italian societies.

Dr. Joseph Pantaleone, a son, is practicing physician in the city of Trenton.

MIDDLESEX COUNTY

Wm. G. Wilentz, Reporter

The annual Middlesex County Medical Society meeting was held Wednesday, December 18, at Pfaffs Restaurant, Metuchen. An excellent attendance was recorded. A shore dinner was served at the beginning of the meeting, as well as professional entertainment.

Minutes of the previous meeting were read and accepted.

The application for membership of Dr. Hofer, Jr., was accepted. The application of Dr. A. Klein was tabled for the present.

Dr. Johnson, treasurer, made his annual report, which was accepted and filed; the society was in excellent financial condition.

The Nominating Committee then offered the names of the following physicians as officers for the year 1930: Dr. Brown, New Brunswick, president; Dr. McCormick, Perth Amboy, vice-president; Dr. Johnson, New Brunswick, treasurer; Dr. Wilentz, Perth Amboy, secretary. All of these men were elected unanimously.

The following men were elected delegates to the State Convention: Dr. Spencer, Mann and Meinzer, for 3 years; Drs. Gutman and Weber, for 2 years; Drs. Henry, Sr., and Ellis, for 1 year.

Dr. F. C. Johnson, of New Brunswick, was elected as member of the State Nominating Committee.

Applications for membership were received from Drs. Kler, Wright and Goldberg. These were referred to the membership committee.

The names of the following members were considered eligible as applicants for the position of county physician, which position is to be filled shortly by the Board of Freeholders of Middlesex County: Drs. Henry, Jr., McCormick, Wetterberg, Greusner, Hofer, Witmer, Lund, Gutowski and McGovern.

The following addresses were made:

"Determination of Surgical Ulcers of the Stomach and Duodenum" by Dr. Sidney Weintraub, Chief of Gastro-Intestinal Clinic, Cornell University.

"Surgery of Gastric and Duodenal Lesions" by Dr. Harold E. Santee, Professor of Surgery, Cornell University.

"Follow-up of Surgical Gastric and Duodenal Lesions" by Dr. Robert Felter, attending physician, Cornell University.

These excellent talks were followed by an interesting discussion by the members of the society.

Dr. Spencer, President of the Society, thanked the speakers for their excellent papers and talks and assured them of the appreciation of the society.

Medical Section of Rutgers Club

John H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Wednesday, December 11, 1929, at the Hotel Woodrow Wilson, at 9 p. m.

Dr. Warren G. Davis spoke on "Cleft Lip, Cleft Palate, and External Nasal Deformities." The address was enjoyed by all those present, numbering about 35.

After the meeting the members adjourned to the main dining room as guests of Drs. McGovern, Nafey, Runyon, and McKiernan.

MONMOUTH COUNTY

Daniel Travers, M.D., Reporter

The regular meeting of the Monmouth County Medical Society was held at the Molly Pitcher Hotel, Red Bank, November 27, with Dr. J. F. Ackerman presiding. Minutes of the previous meeting were read and accepted; communications read and ordered filed.

The application of Dr. Harry D. Fineberg, of Long Branch, was read and referred to the Board of Censors.

Dr. G. Van Voris Warner reported for the By-Law Committee, appointed to bring the County Society By-Laws in agreement with those of the State Society, and the proposed amendment was accepted and the committee discharged with thanks.

The same committee was then re-appointed, with power to choose a third member themselves, to revise the entire Constitution and By-Laws of the County Society.

Dr. W. G. Herrman reported for the Committee on Radio Broadcasting that they had selected 9 subjects to be spoken on from Station WCAP, of Asbury Park:

- (1) History of Medicine, and Announcement of Program.
- (2) Accomplishments of Modern Medicine.
- (3) Part Taken by Modern Medicine in Community Life.
- (4) Tuberculosis.
- (5) Cancer.
- (6) Prevention of Communicable and Contagious Disease.
- (7) Periodic Health Examinations.
- (8) Nose and Throat Infections.
- (9) Soil and Water Pollution.

The first 8 talks will be given by members of the county society; the last to be given by the Professor of Sanitary Engineering, Rutgers Uni-

versity. The talks will be given anonymously and will last 10-15 minutes. All materials used in these radio talks to be seen by the committee before the talk is given.

The report was received with thanks and the committee urged to complete the work as outlined in the report.

On motion of Dr. W. H. Fairbanks, it was voted to hold the annual meeting at the American House in Freehold.

A nominating committee composed of Drs. F. J. Altschul, C. A. Pons, and W. H. Fairbanks was appointed.

On motion of Dr. Pons, the By-Laws were suspended and Dr. F. E. Fenton, of Manasquan, was elected to membership.

Dr. W. H. Fairbanks read a paper on "Present Day Conception and Treatment of Tuberculosis", and Dr. F. J. Altschul spoke on "Pneumothorax".

December Meeting

The Annual Meeting of the Monmouth County Medical Society was held at the American House, Freehold, December 10, Dr. J. F. Ackerman presiding.

Dr. G. V. Warner reported progress for the Committee on Revision of Constitution and By-Laws.

On motion of Dr. W. K. Campbell, it was voted to hold the January meeting on Thursday the 16th, in the Berkeley Carteret Hotel, Asbury Park, in order that the address on "Soil and Water Pollution" to be given by the Professor of Hygiene of Rutgers University could be broadcast at that time.

Dr. John C. Clayton reported, as a member of the State Welfare Committee, on the proceedings of a meeting of that committee held in Trenton, Sunday, December 1.

Dr. F. A. Altschul reported for the Nominating Committee as follows: President, James A. Fisher, Asbury Park; Vice-President, William K. Campbell, Long Branch; Secretary, Daniel F. Featherston, Asbury Park; Treasurer, Robert E. Watkins, Belmar; Reporter, William H. Von Oehsen, Bradley Beach; Censors, John C. Clayton, Freehold; Samuel W. Hausman, Red Bank; William G. Herman, Asbury Park. Delegates to the State Society for 3 years: G. V. Warner, Red Bank; Alternate, W. H. Fairbanks, Freehold; Harvey S. Brown, Freehold; Alternate, H. A. Kazmann, Long Branch. Delegates to the State Society for 2 years: Stanley H. Nichols, Long Branch; Alternate, William J. Jamison, Bradley Beach; Biddle H. Garrison, Red Bank; Alternate, O. K. Parry, Asbury Park. Delegates to the State Society for 1 year: Harry B. Slocum, Long Branch; Alternate, William A. Robinson, Ocean Grove.

Dr. G. V. Warner was designated as member of the State Society Nominating Committee for Monmouth County.

The secretary was ordered to cast one ballot for the entire ticket.

Dr. J. F. Ackerman spoke a few words in valedictory as a retiring president and turned the meeting over to Dr. James A. Fisher, who outlined what he thought the county society should stand for and accomplish in the next year.

A turkey supper was served to the 54 members present, the largest number that has ever attended a County Society meeting.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

The regular quarterly meeting of the Morris County Medical Society was held the evening of December 10, at the Church of the Redeemer Parish House, in Morristown. President Laurence M. Collins presided over a goodly attendance of approximately 40 members and several guests; among the latter being Editor Reik of the Journal whose presence is always warmly welcomed by the society.

A point of interest incident to routine business was the announcement by Secretary Lathrope that the September meeting was the ninety-ninth Annual Meeting of the Morris County Medical Society; that the society was founded in 1816 and held continuous meetings up to 1857 when, for some reason which so far remains unexplained, there were no meetings for about 15 years, or until 1873; that we still have 2 members, Drs. Owen and Cooper, who were among the group of reorganization in 1873; but neither of these venerables remember why the society discontinued in 1857.

Minutes of the September meeting were read and duly approved, as were those of the special meeting held on November 25 for the express purpose of amending the Constitution and By-Laws, at which time the revision was given first reading with approval. Proceedings of a meeting on December 5 of the Executive Committee were read and approved; these referring to a communication from a Visiting Nurses' Association of Somerset Hills, in reference to rules and regulations for visiting nurses, and as theirs were essentially the same as those of the Morristown Visiting Nurses' Association, they were approved; also outlined the meeting schedule for the balance of the year which includes 2 papers on Pediatrics in March, Case Reports in June, and 2 special meetings, if possible; also that they had considered the question of investing the surplus funds of the society which are now on deposit in the bank.

Treasurer Emory reported a balance on hand of \$1647.11; that the paid members for 1930 number 74 with 26 members still to pay; reminding the members that the number of delegates to the state society is determined by the paid membership at the middle of January so that it is very important that we have a full paid membership at that time in order to maintain our proper apportionment of delegates.

Dr. Williams, for the auditing committee, reported having audited the books of the Treasurer and found them correct.

President Collins announced that there have been some difficulties encountered between some of the members and so-called collection agencies which had been referred back to the society, and introduced Secretary McEwan, of the Morristown Chamber of Commerce. Mr. McEwan gave a very illuminating talk on collection agencies in general and explained graphically the workings of the Credit Bureau conducted in connection with the Chamber of Commerce. He strongly advised any physicians considering a contract with a collection agency to first submit the contract to an attorney so that they might avoid signing a contract and committing themselves to conditions and stipulations of which they were unaware. The all too frequent practice of physicians permitting accounts to be set up and letting them accumulate to a considerable size without inquiring into the

credit standing of the patient was definitely pointed out, as also the result that this and the amount of charitable service they render will always leave them with some unpaid accounts, although if attention were more strictly paid to accepting payment when offered, even though it be small, and a check-up of the credit standing made through the Credit Bureau of the Chamber of Commerce, these unpaid accounts could be very materially and profitably minimized; also emphasizing that the efforts through the Credit Bureau to collect accounts, when necessary, were not of such character as to offend, an element which some practitioners might fear; also expressing the willingness personally to afford the society the benefit of suggestions as to ways and means of collecting bills.

To look further into the matter of collection of accounts a committee was duly appointed, consisting of Drs. Costello and Haven.

For the Credentials Committee, Dr. F. Grendon Reed reported in connection with the application of Dr. Stanley Teskey, of Bernardsville, that the Somerset County Society was holding up the transfer and he therefore recommended that action be suspended. On the application of Dr. D. W. Teller, of Morristown, a report of full approval was made.

Dr. Larson, of the Library Committee, had nothing new to report except of the completion of the binding of last year's volumes.

The revised Constitution and By-Laws were adopted.

The application of Dr. D. W. Teller, of Morristown, was acted upon and he was unanimously elected.

The address of the evening was by Dr. Richard N. Pierson, Attending Obstetrician at Sloane, and Assistant Professor of Obstetrics at Columbia, whose subject was "Recent Advances in Obstetrics". Dr. Pierson voiced his pleasure in coming to Morristown, because his father, Dr. Stephen Pierson, and his grandfather were born in Morristown.

The speaker said that he planned simply to present a few of the things that seemed to be really important and then if the physicians were interested in any particular problems he would be glad to answer their questions. Among the important points covered by Dr. Pierson were the diagnosis of pregnancy; this being important particularly with the unmarried girl, with the girl who recently had a baby and is still nursing, or who recently weaned a baby and whose periods were not regular. Dr. Pierson also covered very thoroughly the various types of anesthetics used in parturition and pointed out the advantages and disadvantages and also the danger of using each anesthetic, particularly chloroform, without the physician being well trained and experienced in its use; stating that spinal anesthesia is ideal only for cesarean section and for difficult delivery. He stated that there should be an ideal anesthetic for obstetrics and that we should not be complacent about it and should not adopt the point of view that the woman should stand the whole pain. On the subject of maternal mortality, stating that while we do terrible obstetrics, to say that we are at the bottom of all civilized countries is "laying it on thick"; and pointing to our "blacks" and "polyglot" population as reasons for the high mortality in certain sections; pointing further to the fault of the medical colleges in not giving adequate emphasis to ob-

stetrics; citing that they give 4 times as many hours to surgery as to the teaching of obstetrics; that the medical students should have better training in obstetrics; also stressing the lack of proper and separate obstetric sections in hospitals, and separate personnel, and having these cases scattered throughout the hospital and taken care of by nurses who are nursing all kinds of infectious diseases; that hospitals should have obstetric pavilions entirely separate and the medical and nursing personnel should have their throats cultured from time to time.

Taking up the midwife problem, Dr. Pierson pointed to the sphere they occupy in Scandinavian and other foreign countries; that in some of these countries they must have 2 years' experience in government hospitals, and their knowledge in contrast with that of the average intern in this country with limited opportunities; reminding that the midwife can give no anesthesia and stressing that antepartum care is most important and that in this way we have done a splendid job in this country; that a nurse-anesthetist can be trained to give anesthetics but cannot be trained to advance the science of anesthesia. The speaker did not believe that we are going to advance the art and science of obstetrics if we decide it is not the doctor's job but is a field for the midwife and nurses; he also thought that birth control is one of the great advances in obstetrics; that we ought to get the government and state to take off their laws that are foreign to fair play; citing contacts and conversations he recently had which tend to indicate if not assure that opposition in certain powerful quarters sooner or later will subside and that a way will be found to get behind this improvement.

Discussion was entered into by Drs. Mills, Farrow, Costello, Rubin and Krause. The paper and discussions were greatly enjoyed and to Dr. Pierson was given a rising vote of thanks.

Editor Reik was next introduced by President Collins. After expressing the pleasure he always experiences in attending meetings of the Morris County Society, Dr. Reik said he did not come for any particular reason other than his own satisfaction and payed tribute to the secretarial and reportorial work of the society. In his interesting discourse, Dr. Reik referred to the advancement of the Journal and its improvement from the scientific point of view, stating that the growth during the past few years has been phenomenal; that they have introduced into the Journal a number of new "departments" and expressing the hope that the members occasionally would do him the honor of reading it; that it will keep you well informed on what is going on in organized medicine in New Jersey and in the country. He said something must be done on the question of obstetrics; that the present maternal mortality is a disgrace to the country; that a number of the reports and records coming in from various Health Boards are very discouraging. On the subject of "birth control", touched upon by Dr. Pierson, he thought physicians should show more consideration.

Dr. Reik said that the State Society has not many problems at present to be concerned about, except that we are approaching the time when the legislature meets; that the Welfare Committee has made a report that will appear in the January number of the Journal; also citing probable attempts that will be made by the legisla-

ture in behalf of the chiropractor and other cultists, and explaining the necessity of mass vigilance and expressing confidence in the Morris County Senator and the Assemblyman. He summarized the extensive work being done in the educational campaigns by Mrs. Taneyhill, and in the antidiphtheria campaign, rounding out a discourse of much interest and enlightenment.

President Collins, before closing, made complimentary reference to the work of the Committee on Revision of Constitution and By-Laws, expressing deep and sincere thanks of the society to Chairman Lathrope, with assurance that his hard work has not been in vain.

Adjournment was taken and inviting refreshments enjoyed.

PASSAIC COUNTY

Francis W. Ash, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held at the Health Center December 12 at 9 p. m., Dr. Wm. Spickers presiding. Minutes of the November meeting were approved as read.

The Censors report was read to the society, approving application of the following doctors: Sidney Brooks and David B. Levine, of Paterson; Abel Gordon, Kalman Von Haitinger and George Von Haitinger, and George W. Dren, of Passaic. A discussion of the merits of these candidates, by various members of the society, was followed by balloting which resulted in the election of all except Dr. Dren.

The following applications were received and referred to the Board of Censors for investigation: Martin Nemirow, Henry V. Weinert, and Altan C. Leibowitz, all of Passaic; and Alfred Widetsky, of Paterson.

Letters from the Somerset and Hudson County Medical Societies, advocating the endorsement of Drs. Quigley and Ely for Third Vice-President, were read to the society.

Dr. Howard H. Mason, of the Babies' Hospital, New York, spoke on "Feeding and Nutrition of the First Year", giving a splendid and simple exposition of his subject, which provoked an active and interested discussion by the pediatricians. The society gave Dr. Mason a rising vote of thanks for his paper.

A motion was passed requesting the Executive Council to confer with the officers of the Passaic Practitioners Club on the advisability of that club becoming a constituent part of the Passaic County Medical Society.

Dr. Marsh spoke of the uneconomic arrangement under which the Paterson Eye and Ear Infirmary operated. It had been determined by the Directors of that institution that it would be wiser to have quarters in some general hospital in the city. After looking over the field it was decided to lease space from the General Hospital, as being best suited for the purpose without in any way merging with that institution. The endowments, executive boards, and physicians of the 2 institutions will remain separate.

Dr. Pinneo's letters relative to the complaint by Dr. Mendelsohn that the State Health Policy did not protect during convalescence were read, and discussion followed, but the society did not care to take action.

The report of the Executive Council on the subject of advertising was accepted. No action was advocated. The report follows:

"It was the opinion of this committee that a properly conducted campaign would be beneficial in that it would help educate the public in preventive medicine and aid in bringing patients for periodic examinations, and in acquainting the public with what scientific medicine can do. The committee did not think it wise to accept the offer of the Evening News and advertise in that paper alone. The committee believed that if advertising were to be done, it should be done in all the county newspapers. This, however, at the rates quoted by the News, would cost \$300 per month. This amount was more than the committee felt it had a right to spend without putting it before the society. The committee felt that unless financial aid was received from other societies which are directly interested in the prevention of sickness, it would be too much of a financial burden. In other counties, the Tuberculosis League and Health Boards have contributed. Perhaps some such aid could be obtained here."

The By-Laws, as revised by Dr. Charles R. Mitchell, were read and accepted after amendment.

SALEM COUNTY

William H. James, M.D., Reporter

The Salem County Medical Society met at the Memorial Hospital, Salem, N. J., on Wednesday afternoon, December 11, at 2 p. m.; President L. H. Hummel and Secretary David W. Green were the presiding officers. The minutes of the last meeting were read and approved.

Dr. W. T. Hilliard, of Salem, read a very interesting paper on "Enuresis", giving the various symptoms and treatment. This paper was discussed by most of the members and guests present.

Dr. William H. James, of Pennsville, reported "A Case of Hour-Glass Contraction of the Uterus, Anteportal".

The guests present were Drs. Glover and Clement from Haddonfield; and John H. Moore and L. E. Myatt, of Bridgeton.

Dr. Myatt gave a very interesting talk about "Spinal Anesthesia in Major Surgical Operations", and the comparative freedom from dangerous results. This was also discussed by the members present.

After the meeting, the members and guest enjoyed a splendid turkey dinner at Johnson Hotel.

The next meeting will be held at the Memorial Hospital, the second Wednesday in February, 1930.

SOMERSET COUNTY

J. H. Cooper, M.D., Reporter

The Somerset County Medical Society held its bimonthly meeting December 12, when a great deal of enthusiasm was manifested and the members were very "peppy" in their remarks about the progress the society is making. All the members are very pleased with the woman's auxiliary and the great help it is giving to the society.

The society takes great pleasure in the fact that our great friend and leader, Dr. Ely, is in

the race for third vice-president of the state society. We know he would grace the chair if elected.

UNION COUNTY

Elizabeth General Hospital Clinical Society

Michael Vinciguerra, M.D., Reporter

The monthly meeting of the Clinical Society of Elizabeth General Hospital was held December 17, under the presidency of Dr. Michael Vinciguerra. The papers of the evening were by Dr. P. Dubois Bunting, who spoke on the topic "The Physiologic Obstetric Case," and by Dr. Arthur Stern on "The Four Most Common Disorders of Children."

The disorders were constipation, anorexia, enuresis, and nervousness. Dr. Stern called attention to the fact that constipation in children is not a disease, and that he overcomes it by the rectal injection of olive oil. The lack of appetite complained of by the mother he finds is not real, as the child takes the food he likes, giving him sufficient calories. He treats enuresis by psychological approach. Nervousness is usually aided by low protein diet.

Dr. Bunting emphasized the fact that parental care is very essential to prevent many unnecessary complications in obstetrics. He spoke of the deleterious effects of narcosis both to the mother and to the child. Such procedure, he said, should not be used so promiscuously as it is. He called attention to the desirability of repairing any perineal damage, and to be sure that the uterus is in good position before discharging the patient. After paying high tribute to the expectant mother, he exhorted the younger colleagues to be ever conscious of their duty and to meet the trust put in them by these mothers.

Dr. Vinciguerra presented 2 cases, the first being one of psychic block in a child of 8 years, and the possible origin of this block being described as a retarded myelination of some of the cerebral associative fibers. This child had been in the kindergarten for 3 years and had a scholastic mentality of 4 years which had remained such for 3 years.

The question of sending her away to an institution was considered, and advice was sought. History presented the facts that birth was normal; physically showed nothing but being fragile and anemic; neurologically negative; no stigma of endocrine dysfunction; mentally, patient seemed intelligent but had a blank introspective expression. Since May 14, 1928, when Dr. Vinciguerra first saw her the girl has constantly improved. During this time she has been able to cover 3 years of work, and now is an average pupil in the 3-A class.

The second case was one of behavior problem in a boy aged 13 brought to the psychiatric clinic with complaints of truancy, petty thievery, untruthfulness and diffidence to school work. He was in the fourth group of the seventh grade and his teacher described him as "inattentive, restless, noncooperative, and a failure in his work." In the course of 6 weeks, he has improved so much as to be advanced to the first group.

Discussion during the evening was by Drs. Dennin, DuBusc, Rippes, Eaton, Horre, Grear, Wilson, Banker and Arthur.

Collation was served, after the meeting, by the Woman's Auxiliary.

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INJURIES TO THE HEAD

WALTER E. DANDY, M.D.,

Associate Professor Clinical Surgery, Johns
Hopkins University

Baltimore, Maryland

(Read at the Annual Meeting Medical Society of
New Jersey, Atlantic City, June 13, 1929.)

For hundreds of years medicine and surgery have tried to develop a standardized treatment for injuries of the head. It has, as you know, been entirely unsuccessful. Furthermore, it is a goal which is utterly unattainable and it stands to reason that it can never be reached because the injuries are so tremendously variable in their results.

A century ago 2 of the greatest surgeons of that period carried on a long and very acrimonious dispute about the relative merits of 2 methods of treatment. The great Percival Pott, whom we know so well through Pott's puffy tumors, Pott's fractures, and so on, operated upon practically all cases of fractures of the skull. That, of course, was in the pre-antiseptic period. His method of attack was to make multiple trephines along the line of fracture so far as he could identify it when operating. As you know, the lines of fracture are very long at times and the number of trephines which that great surgeon performed sometimes extended up into the twenties. I recall one testimonial obtained from a distinguished member of English royalty on whom he had done 26 trephines and he used this letter of gratitude as proof of the splen-

did results which followed operative treatment.

No less illustrious surgeons than Pott were Sir Charles Bell and his brother, John Bell. They were strongly opposed to operative treatment, unless the fractures were badly depressed. Their results seemed to them—and undoubtedly they were—superior to those obtained by Pott. Percival Pott was groping in the dark in many ways. He had to deal with all of the uncertainties, or rather the certainties, of sepsis which then prevailed. In operating he was possibly introducing infection when he thought he was preventing it.

At the present time there still remain great differences of opinion, perhaps less as to operative or nonoperative treatment. Some treat conservatively, others more or less radically. There have been many new additions to our armamentarium for the treatment of injuries of the head. The treatment of cranial injuries so largely in vogue at the present time, when taken compositely, is a curious admixture of tradition, of scientific facts and of fallacies which pass under the cloak of science.

I am not sure whether the term "injuries of the head", as applied to this part of your program, was suggested by myself or by your Chairman, but the title is very much superior to "fractures of the skull" under which the subject is usually considered. The term "fractures of the skull" is very misleading; it has been carried down from past centuries when the skull alone could be treated, the brain being *noli me tangere*; it is in fact little more than a figure of speech—metonymy. Just as

we say a kettle boils, so we say the skull is fractured.

As a matter of fact, we are relatively little concerned with the actual fractures of the skull. In this respect fractures of the skull are entirely different in significance from all of the other bony fractures of the body. It is the injury to the intracranial contents which is all important. Patient's don't die from fractures of the skull; they die from the injury to the brain. Patients don't have epilepsy from injury to the skull; they have epilepsy from injury to the brain. Far too much is the treatment of today still directed to the fracture of the skull itself. Still too frequently we are following the old treatment of Percival Pott of following fractures to their terminus as though searching for a pot of gold at the end of the rainbow. It is difficult to leave tradition and to work rather upon an anatomic, physiologic and pathologic basis. For so many years we worked blindly; although the facts are now slowly coming in, it requires time to change.

On the other hand one can and does carry out very extensive treatments today under the assumption that they are based upon scientific facts, but the facts may be entirely irrelevant or used far beyond any justification. Not long ago I was visiting one of the largest hospitals in this country. I was told that every patient who entered that hospital with an injury to the head was, first of all, sent to the x-ray room, for a stereoscopic x-ray of the side of the head and the front of the head to determine the extent of the fracture; was then sent to the dispensary where a lumbar puncture was done, the pressure of the cerebrospinal fluid was accurately measured, and as much cerebrospinal fluid was removed as possible; moreover, this was usually repeated at stated intervals. If the pressure of cerebrospinal fluid registered too much, the patient was immediately given an intravenous injection of hypertonic glucose or sodium chloride. That treatment includes about all of the modern additions to our therapeutic armamentarium except the surgical. Perhaps you might call it the medical as opposed to the surgical treatment.

What is the urgent need of rushing very ill patients to the x-ray room, moving them about from stretcher to the x-ray table and back again in order to get radiograms? Some patients are so ill that this manipulation is the "straw that breaks the camel's back", and no real good has been accomplished. It is carrying out the old tradition. When life itself is the paramount issue, we are not interested in fractures, unless depressed—and that can be determined by palpation as well as by x-rays. Only when life is safe are we justified in considering any treatment of a depressed fracture. There is no treatment of other lines of fracture and no material help accrues from detailed knowledge of the fracture-line. Go as far as you like with x-rays, but only when the patient is out of danger.

Why perform lumbar punctures on very ill patients with injuries of the brain? They say, to find out how much pressure is in the cranial chamber and that tells us exactly where the patient stands. Perhaps that is true to a certain extent, but you can learn much more accurately the degree of intracranial injury and of pressure by the old-fashioned method of observation. There would be no harm, of course, in doing a lumbar puncture to get additional information if it were possible, if in doing so you were doing nothing harmful, but you are doing harm when you do a lumbar puncture. There is no question about it.

You can't do a lumbar puncture on a normal individual without producing headache, and if you withdraw much fluid it may persist for several days. The headache is due to cerebral injury. The injury probably occurs because the brain is thrust against the sides of the skull. If a lumbar puncture is done in the presence of increased intracranial pressure, which obtains in cerebral injuries, the resultant trauma will be proportionately greater. It is true that the patient may improve immediately after you do the lumbar puncture, but it is only a transient change. If the hemorrhage is in the posterior cranial fossa, the patient will probably be made worse instantly owing to injury of the medulla. If an extradural hemorrhage is present, the release of pressure is the worst possible thing that can happen to

induce further bleeding. Even when pressure is immediately relieved it cannot last because more intracranial pressure will return in the course of a few hours from the additional damage which the puncture has created. What happens from a lumbar puncture is about what happens from the fracture itself though in lesser degree. When the skull is traumatized, the brain is injured because it is thrown against the sides of the skull. The resultant injury to the brain produces within the brain changes which are precisely similar to those which appear in the tissues elsewhere when injured. For example, an injured hand will swell in the course of a few hours. The swelling is the result of 2 components—hemorrhage and edema—and these occur in different proportions. Sometimes hemorrhage predominates, as in a black eye; at other times the swelling is largely fluid. All intracranial pressure results from hemorrhage and edema. It is this pressure which causes death. Lumbar puncture doesn't remove either this edema or blood. It removes the fluid from the ventricles and this nature is able to do and does in her manner of space compensation, the fluid being absorbed into the blood.

The final part of the treatment under discussion is the administration of hypertonic solutions of glucose or salt. There isn't anything more striking than the shrinkage of the brain after the introduction of a 25% solution of hypertonic salt or glucose into the venous system. Why isn't that, then, a wonderful solution of our problem of treating injuries of the brain? Because there is a reaction. Just as there is a reaction after doing a lumbar puncture, so there is a reaction in the brain from the use of these strong chemical solutions. The patient may even return to consciousness, after being deeply unconscious, but it doesn't hold. The patient later becomes worse than when you began. This is a fad, which has a definite scientific fact behind it, but fails to take into consideration other physiologic and pathologic facts which are distinctly in opposition.

We are told that the cures are greater by the above methods of treatment. Everyone who has a pet form of treatment can bring

statistics to prove his point. There is no field of treatment in which figures can be more deftly applied because the injuries are so extremely variable. We must be sure we are not over-treating the patient and that our over-treatment is not doing harm instead of good, or more harm than good. Did you ever let your patients alone and see the percentage which recovered? There is no doubt in my mind that if nothing is done there will be more recoveries than if the things that I have just enumerated in the modern methods of treatment are done. So many patients with severe injuries of the head will hang in the balance for hours or days, and one little thing that is harmful can destroy that balance and lose the patient.

It is true that all of these treatments can be carried out in most patients and they will survive, but in spite of and not because of what you do.

What treatment then is advocated? First, leaving the patient strictly alone until you know that nature is unable to cope with the situation. Study your patient constantly until well out of danger. Only by frequent observations can you know precisely where your patient stands. There is no panacea for injuries of the head. Each case must be considered a law unto itself. But until there is a definite indication to do something give the patient the benefit of absolute rest. A certain percentage—perhaps 20%—will be lost with the utmost available efforts because the injuries are so severe. About 70% will recover if left strictly alone. About 10% of the cases that would be lost if left alone can be saved by a well timed and well directed operative treatment.

How can we know at all times from clinical observations the exact state of intracranial pressure? The following observations give the desired information. (1) The state of consciousness. This is the most important observation. We know if a patient is unconscious that he has intracranial pressure beyond the limit of compensation for consciousness. If the patient's unconsciousness deepens during the next 5 or 6 hours, we know that the pressure is increasing and then surgical

intervention must be considered. If the patient's consciousness is returning, we know that cerebral pressure is being reduced and that the patient is improving. Spinal puncture could give us no information so valuable as the state of consciousness alone. (2) The pulse and respirations are taken every 10 or 15 minutes and charted in curves. As long as the increased intracranial pressure is being compensated the pulse, temperature and respirations show characteristic changes. Beyond a certain degree of intracranial pressure a break in compensation must occur and this is manifest by certain other characteristic changes. A slow pulse and slow respirations are indications of intracranial compensation. A temperature below 101.5° or 102° is another valuable indication of the patient's safety. A broken compensation or an impending break in compensation is shown by vacillations in the rate of the pulse. It may be 90 one moment and 60 at another. The same is true with the respirations. They become irregular in rate and volume and may be of the Cheyne-Stokes type. One of the most important and most delicate indices of intracranial pressure is the temperature. It frequently gives us our first positive information that a break in compensation is developing. When the temperature is steadily rising, you can be sure that is the measure of intracranial pressure. Blood pressure records are of little value.

Two other observations are of the utmost importance: (1) Restlessness and (2) involuntary micturition or defecation. If a patient is restless, he is on the border between compensation and a break in compensation of intracranial pressure. Restlessness means that the patient is either coming out of coma or going into it. The duration of the period of restlessness is variable, but its meaning is invariable. Restlessness should never be submerged by morphia for our most valuable sign would be masked. Incontinence of urine or feces occurring when the patient is seemingly conscious means a break in cerebral compensation. The above observations are precisely the same as those which are made after every cranial operation and for precisely

the same reason, i. e., to determine the increase of intracranial pressure. There are no other tests which can act as substitutes.

When do you operate and what type of operation is indicated? As I have said, in less than 10% of cases. It is when, after a period of 6 or 8 hours, the patient shows deepening coma, cessation of restlessness, vacillation of pulse, tachycardia, increasing respirations, and a rising temperature. If a patient is going to die from injuries of the brain in less than 5 or 6 hours (excepting extradural hemorrhage), there is nothing you can do to prevent the outcome. There is no point in operating upon patients with such a high grade of intracranial pressure. When operation is indicated it must frequently be done quickly for broken compensation of pressure occurs rapidly and inexorably. An hour's indecision may make the operation useless.

What form of operative treatment do we use? A right subtemporal decompression is the only treatment which can relieve pressure constantly and safely. There are, of course, instances when even this degree of relief is not adequate. There was a time when some operators performed decompressions almost routinely and with dreadful mortality. It is needless to say that operative treatment is always dangerous except in the hands of those who are thoroughly qualified. A lumbar puncture can only give relief for a few hours at most, and then there is more pressure than before. It is necessary to relieve pressure over a period of days until the edema subsides and hemorrhage begins to subside.

It is remarkable what nature will do. A hemorrhage as large as one's fist can be adjusted to the space requirements in the skull by nature's method of squeezing out the cerebrospinal fluid then reducing the volume of the fluid spaces in the brain. That is the real function of cerebrospinal fluid: It is not to float the brain. Were it not for the cerebrospinal fluid in the ventricle and in the subarachnoid space there could be no compensation for emergencies, either of pressure or of loss of brain tissue—both from various causes.

There are 2 types of injuries of the head.

The injuries that I have just mentioned give us concern about life. It does not matter whether we classify injuries into 2 types—base and vault. It is much better to consider the problem of saving life and either type may be equally serious. When life is secure our attention is then directed to disturbances of function, some of which may be helped, others must take their course. Epilepsy is one of the great sequels of cerebral injuries which may be primary within the brain or result from depressions of bone. All depressed fractures should be elevated at the earliest moment compatible with the patient's condition. This is devoid of danger. Perhaps I should have mentioned that all compound wounds of the head must be immediately converted into simple wounds by closure—and without drainage. There are no exceptions to this rule. More extensive local treatment of wounds is to be done only when the patient's condition justifies it.

There is one type of injury of the head that stands out alone in demanding prompt and effective operative treatment, i. e., those with resulting extradural hemorrhage. The actual percentage of this type of injury is small—perhaps 5%—if recognized and treated correctly, and nearly all will be lost if left untreated or treated badly. Extradural hemorrhage is caused by the line of fracture crossing and tearing the middle meningeal artery in the temporal region. The hemorrhage develops steadily and quickly; as it progresses the dura is stripped from the skull, thus producing many additional bleeding points where the branches of the artery cross from the dura to the skull. The result is, therefore, an example of a vicious circle.

It is very difficult at times to tell when you have an extradural hemorrhage but it may be suspected from 3 symptoms: (1) a free interval of consciousness before a gradually deepening coma (due to intracranial pressure); (2) gradual hemiplegia affecting the face, arm and leg in the order mentioned; (3) convulsions beginning always in the face and spreading to the arm and leg. All of these signs may be absent and all may be present in primary injuries of the brain.

There is only one treatment for the extradural hemorrhage and that is to remove the hemorrhage and tie the middle meningeal artery—usually at the foramen spinosum.

Lumbar puncture or intravenous injections of hypertonic solutions of salt or glucose are particularly disastrous in the face of an extradural hemorrhage. The additional intracranial room acquired by the release of pressure allows the dura to be stripped still more and hemorrhage goes on anew.

In the case of all injuries of the head the most important thought I should like to leave with you is this: every case of injury of the head is a law unto itself. Every case should be carefully studied with every means at our command and watched continually until all danger is past. Only when we know what is taking place in the brain are we in a position to know what is best to do. Be sure our treatments are not overdone and are not resulting in additional harm.

So much for the diagnosis and treatment of acute cranial injuries. Unfortunately there is another group of later complications which must always make one cautious in dismissing patients as cured. Some of these sequels occur days, others weeks, and others months after the primary injury. Moreover, the original injury may have appeared surprisingly trivial. Treatments, of course, are different according to the character and location of the underlying lesions. Meningitis may result if the crack in the skull passes through the infected paranasal or mastoid cells. If the patient drains cerebrospinal fluid through an infected sinus, meningitis is practically assured. There is no way to prevent it and there is little that can be done in treatment. It is, therefore, a matter of pure chance whether the sinus is infected or sterile.

If the fissure in the bone goes through a frontal sinus where the brain itself and not cerebrospinal fluid is in apposition with the skull, a brain abscess may follow. Abscesses of the brain are very much more satisfactory to treat than meningitis.

Pneumocephalus is another complication. Through a break in the paranasal sinuses, air may be forced into the brain by straining,

sneezing and coughing. The air may enter the subarachnoid space, the subdural space, or the frontal lobe. The exact site of the air depends upon whether fluid or brain tissue lies immediately beneath the bony opening and whether the injury breaks through the leptomeninges. Large air cavities in the frontal lobes may eventually rupture into the lateral ventricle, producing spontaneous ventriculograms. Symptoms of intracranial pressure usually result and may persist for many weeks. After fractures through the sphenoid cells, the air reaches the cerebrospinal fluid. There is no treatment for these patients. They may heal spontaneously or die of meningitis. After fractures through the anterior ethmoid and frontal sinuses, or one of the other sinuses, the air reaches the subdural space or the interior of the frontal lobe. These are treated by closing the dural defect with a fascial transplant.

Then there are the remarkable cases of subdural hematoma resulting from tears in the veins crossing from the cerebral hemisphere to the longitudinal sinus. The injury to the head may be seemingly trivial. The hemorrhage fills the subdural space and covers a large part of a hemisphere, or even of both hemispheres. The hematoma becomes encapsulated and acts as a tumor. Pushing the brain ahead of it, the hematoma becomes of tremendous size and eventually causes death from intracranial pressure. The pressure continues for weeks and months before the fatal outcome. Subdural hematomas are cured by removing the hemorrhage and the lining membranes.

Subdural hydroma is quite similar to the hematoma, the difference being that fluid instead of blood fills the subdural space. The fluid pours through a defect in the arachnoid, and collects in the subdural space where it absorbs very poorly. It, too, becomes encapsulated, though more slowly than the hematoma. The symptoms are headache—usually unilateral—and at times nausea, vomiting and papilledema. Subdural hydroma is cured by evacuating the fluid through a perforator opening.

Finally, there is the condition of an arterio-

venous aneurysm due to a tear along the base of the middle fossa of the skull. As you know, the internal carotid artery passes through the cavernous sinus in that region. It is the only place in the body where such a condition as this can occur but it is a not infrequent sequel. A tear in the artery permits a fistula to develop between the artery and the vein—an arteriovenous aneurysm. Were it not for the creation of the arteriovenous aneurysm the patient would doubtless bleed to death. Arteriovenous aneurysms are easily curable by ligating—either partially or totally, depending on the patient's age—the internal carotid artery in the neck.

It is evident, therefore, that of the late complications of injuries of the head, a correct diagnosis and treatment offer a high percentage of cures. Many cases of pneumocephalus, all of subdural hydroma, subdural hematoma, many brain abscesses and all arteriovenous aneurysms are curable and with little risk.

DISCUSSION

Dr. Martin W. Reddan (Trenton): The only excuse I have for being here is that fools rush in where angels fear to tread. But, strange as it may seem, I will say I have thoughts of my own. I have had the pleasure of doing some work with Dr. Ebaugh, one of your students. We have done some air diagnosis and I have been very much interested in that work myself. I may say that by some strange chance—and you must be complimented—I agree with most every thing you say. (Laughter)

I was very much impressed by your statement that there is no standard treatment of head injuries. As to the diagnosis, I was equally impressed. There is no standard any more than there is a standard for blood pressure. Perfectly consistent with apparently good health, you may have wide variations in blood pressures, not only in injury but in normal life. Why, if that is true in every-day life should that same thing not hold true in blood pressures, in spinal and eye-ground tests after a head injury?

I am more than pleased to find you decrying spinal decompression. I do tap the spines in some cases but merely enough to positively determine the presence or absence of blood; it is not done with any idea of reducing the pressure, because, as you said, even though it be done, how very, very quickly the pressure returns. You have had no permanent results, but you have traumatized, you have disturbed that patient.

I couldn't tell you why I do operations in some cases and why I do not do them in others, unless it is a "hunch", taking the patient as a whole and estimating procedure on what you think of that individual patient. Blood pressures are fine; spinal measurements are fine; I grant you examinations are fine but, after all, it doesn't make much difference to that patient if you have gone through all

these things and the patient dies. He is just as dead as though you hadn't done any of them.

About the use of x-rays: In my own work, in these days of malpractice accusations and of having to prove most everything, the use of the x-ray in my cases is largely done from a medicolegal standpoint; for fear that if it were not done, some hyster lawyer would tell me that I was lacking in the proper treatment of that case.

The pulse, temperature, respiration and consciousness as applied to the individual patient are the guiding points in my belief. The urinary incontinence was a new angle and one which I have only very recently seen, but I am very, very thankful for that suggestion because I had a patient such as that die within a week and I think that would have been a valuable aid to me had I followed it up.

I have been somewhat radical in my belief in the treatment of brain injuries. I say "belief" because my radicalism hasn't extended fully to putting it into practice because in the face of the very eminent opinions, the wide experience of men who are doing such wonderful work, I have hesitated about it. Yet it has always seemed to me that any injury to the head sufficient to produce unconsciousness even if it is only very transitory, has done some injury to that brain. Perhaps it has even produced those minute hemorrhages of which you speak and the man may regain consciousness; he may get well; but months afterward you will find, not infrequently—at least I think so—a change in the man's mental attitude. He has headaches and a condition similar to that of shell shock. It is one of those intangible things that have no physical measure and yet it is there. You can't estimate it. You can't measure it, but I believe it is present. For that reason, I say, I have sometimes advocated a decompression in a head injury which has been sufficient to produce some momentary unconsciousness. I am trying to screw up my courage to the sticking point to follow out that belief. I haven't quite gotten up to that degree of courage yet but I hope to some day, if I live long enough.

I would like to ask Dr. Dandy why he says all depressed fractures should be immediately operated on? Why would he not also decompress a linear fracture which is not depressed?

I am asking him that question because in a depressed fracture, if you have no tearing of the dura, I cannot see why the pressure of that bone is any worse than a non-depressed linear fracture with its underlying brain injury. Not that I wouldn't decompress that linear fracture—I certainly would—but why should you raise that depressed fracture any more than you would do a craniotomy to relieve the pressure which, to my mind, is not so much due to the presence of the depressed bone.

Those punctate hemorrhages of which you speak are the local manifestation of a widespread edema rather than the total or the aggregate amount of blood that is infiltrated into the tissues, even though punctate. I would think that the punctate hemorrhage is not of as great importance as the edema of the brain, a very soft, pulpy mass trying to expand within an unyielding bony capsule. Of course, where you do a decompression and you do have a bulging of the brain, I can readily see that you might do harm there if sufficient opening is not made. It is my practice there, before opening the dura, if I find the brain bulging out, to go ahead with that decompression until I have almost relieved the bulging portion of the brain before opening the dura, because I think that if you run a stalk of your brain

up through a small opening in the skull the damage you can do is so obvious, it isn't good to proceed.

As for the proceeding of decompression, I don't know any simpler operation than a decompression with your old-fashioned trephine and subsequent enlargement with a rangeur. On a conscious patient it is very readily done with local anesthesia. In fact, one of the first complaints I had was from an old drunk in St. Francis' Hospital who said I was pulling his hair. You can see how little effect it has on the patient himself. It is a matter of a few minutes. If you carefully open the dura, you certainly have provided an escape for that fluid and reduced, to that extent the amount of brain pressure.

Again a case of fools rushing in where angels fear to tread, I do not hesitate to give an anesthetic—ether—where I have an unconscious but obstreperous patient. Whatever increased pressure you get is of such short duration that I think the amount of compensation by doing a decompression and opening the dura is far greater than any damage you may do by increasing the pressure by the administration of ether.

Again, Dr. Dandy, I want to tell you that probably there isn't a prouder young fellow—and I am that yet—around here than myself, to be delegated to discuss your paper.

Dr. George Reese (Shamokin, Pennsylvania): It has been my pleasure on several occasions to listen to Dr. Dandy. I always go away refreshed, not only in wisdom but in knowledge. I appreciate this privilege from my esteemed friend, your President, and I would certainly like to talk about 20 minutes and ask a few questions on this subject of head injuries.

I have had a number of cases myself, and one case in particular, where I attribute the good result to this illustrious man. I had a little girl who was unconscious for 22 days and a boy that I put back in the corner. I said, "Dandy says don't do anything;" and we did nothing and the patient got well.

Dr. Dandy: In answer to Dr. Reddan's question as to the need or desirability of elevating depressed fractures, it is purely to prevent the possibility later of epilepsy. It won't prevent it entirely because the brain may still be injured beneath it but it removes the match from the powder.

FRACTURES OF THE FEMUR, FROM THE STANDPOINT OF THE GENERAL PRACTITIONER

ELMER P. WEIGEL, M.D.,
Plainfield, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

I know of no problem today which is fraught with more trouble and danger for the general practitioner than the treatment of femur fractures. I say this reservedly for I know there are many general practitioners who are treating fractures well and are doing

justice to their patients and great credit to themselves. However, I think you will agree that nearly all of us have had some unfortunate experiences in this type of case, which we are not anxious to repeat.

The number and extent of these cases is rapidly increasing for we are living in an age of rapid transit of all types and industry is constantly claiming more and more victims. Also, I feel that the fractures which we see today are more severe and extensive than formerly, involving bone and soft tissue to greater extent—particularly is this to be noted in our bad automobile accidents. Recently, in one of the hospitals which I attend, of a total male ward service of 30 beds, 19 held fracture cases, and I feel this is a condition which prevails in many metropolitan vicinities.

The serious aspect of these cases is increased by the activities of unscrupulous lawyers who have learned that these cases frequently pay well. If there is an x-ray picture that shows only a slight bowing or the smallest amount of mal-alignment regardless of how well the limb functions, they are ready to claim very substantial damages and, unfortunately, succeed often in convincing a lay jury that the patient is seriously disabled permanently. And you all know these verdicts are not for small sums.

In this respect, I feel that while perfection of the x-ray work has been the greatest aid to the profession, both in diagnosing and treating fractures, it also has been the means of causing many unprincipled patients to seek damages for injured limbs which serve them perfectly well, but in which they have been persuaded to expect future trouble because of supposed malposition. I have also known of quite a number of reputable physicians being made defendants in legal actions which might have been avoided had the results been judged only by functional activity.

Most of us are agreed, I am sure, that the proper treatment of fractured femurs requires hospitalization where all the facilities of x-ray, anesthesia, traction tables and frames, and other specialized apparatus are available. Few of us care to accept the responsibility of

attempting this treatment at a home, but this is seldom necessary now-a-days because of the marked increase in number of hospitals throughout the country and improved automobile transportation. In fact, I know of very few localities that are not amply served by fairly well equipped hospitals nearby. Also, the very nature of the treatment that is frequently employed makes hospitalization necessary. For example, the efficiency of traction can only be judged by frequent radiograms, which cannot be obtained at home. Also, operative reduction, when resorted to, requires the services of the best equipped operating room. The public has become enlightened to the point where people are no longer satisfied with any kind of a result; they demand that we give them straight legs with no appreciable shortening, and joints that are freely movable; results that can only be obtained by the highest type of hospitalization.

It is interesting to note the various methods of treatment employed in different parts of the country by men of reputation. Recently at a fracture symposium attended by most of the prominent authorities on this subject, I heard every conceivable type of treatment recommended for fractures of the femur. One authority was just as positive that best results were obtained by open operations on all cases, as another was sure that this type of treatment was not only unnecessary but frequently dangerous. Another claimed that the internal use of metal in the form of plates and screws gave him almost perfect results in all cases, while a fourth condemned this method as antiquated and harmful. So, we have good men in different localities advocating, on one hand open reductions, and on the other never to operate; use of all types of foreign bodies, bone-plates, pegs and screws; but we still have in all localities nonunions, malunions, marked shortening, limited joint motion, and some times even discharging sinuses. All of which might lead any careful observer to conclude that the treatment of fractured femurs is not yet standardized and we all have much to learn about this most interesting subject. I am not, however, pessimistic, and frequently

recall that there are only 2 individuals who have no bad results, namely, the poor chap who does not recognize them, and he who does nothing.

There are some well established principles and practices which will help us obtain uniformly better results and it is of these that I wish to speak briefly.

We all realize the frequency and seriousness of fractures of the hip. It is truly the most disabling of all fractures. Contrary to common belief it does not always occur in old people. I have recently seen a case of fracture of the femoral neck in a child 12 years old, and at one time had 3 patients in the hospital under 30 years of age. The majority of cases, however, do occur in those past middle life; and due, frequently, to impaired general health at that age, such fractures do not unite readily. There are, however, other reasons why many of these cases become ununited. Anatomically, the fracture is situated deep in the heaviest muscles of the body and the fragments are very difficult to control. It is at least in part intracapsular. The old classification of intra and extra capsular fractures of hip was misleading, as every case in which the neck of the femur is fractured is at some point intracapsular. This very fact means there is no periosteum present at the site of fracture, and while this is not the only bone layer concerned in osteogenetic function it is an important one. Again, the blood supply to the capital fragment is very meager as the only possible source is through the ligamentum teres and frequently the same injury which caused the fracture has destroyed this as well. There is also a lack of end thrust which is so helpful in stimulating bone growth in fractures of the shafts of the long bones.

All of these factors, I am sure you will agree, tend to make this fracture prone to nonunion and yet I feel that the most important cause of all has not yet been mentioned. I refer to the poor treatment which these cases frequently receive. The long splint which extends from the axilla to the foot, seldom accomplishes more than severe pressure sores over each of the bony prominences. The Thomas splint was never intended for treat-

ment of hip fractures and does not immobilize. Buck's extension, which I have seen applied, helps pull the fragments apart rather than together. And lastly, the so-called sand-bag treatment, which is usually resorted to when it is decided that the patient's age or the possibility of a pulmonary involvement makes more radical treatment unwise. I know many capable and honest practitioners who can guide a patient through a severe pneumonia, remove an appendix or repair a hernia with credit to themselves, but when it comes to treating a fractured hip, sand-bags seem to be the extent of their armamentarium.

I am convinced that a much larger percentage of these cases can be gotten to unite satisfactorily if they are efficiently immobilized and nature is given an opportunity to repair the fracture.

The application of a well-fitting plaster spica, physiologic abduction as recommended by Dr. Whitman, is the usually accepted method of treatment. Not only will this dressing give the patient an opportunity to form callus while the fragments are firmly held in position but after the first few days the convalescence is much more comfortable. The pain which these patients suffer, due to the grinding together of rough bone fragments, when they are not immobilized, tends to wear them down rapidly and soon depletes what resistance they had. Each time they are lifted on or off the bed-pan the pain is severe and frequently accounts for marked constipation with its train of ill effects. This painful moving also contributes to the development of pressure sores, because they will not permit themselves to be turned in bed. A well-fitting spica obviates all this discomfort and I have used them on people 90 years of age with good results. Occasionally it seems wise to apply a spica to very old or feeble patients in a position of partial flexion of the hip and knee so as to allow them to be lifted out of bed into a chair in a sitting position. This can be done and frequently makes it possible to maintain fixation when the usual dressing in extension would not be tolerated. This type of dressing is more suitable, of course, for the treatment of impacted fractures or those in which

there is no displacement of fragments. In the case where there has been displacement of the fragments it is the abduction that we expect to hold the fractured fragments in alignment and this of course is partly lost when the sitting cast is applied.

Impacted fractures. Due to the cancellous bone present in the neck of the femur and about the trochanters, or to the direction in which the force causing the fracture is applied, many of these fractures in old people become driven together or impacted. When this condition is revealed by x-rays there seems to be quite a prevalent opinion that the case does not need active treatment but that the fragments will become united in the position shown in the x-ray picture. This, however, has not been my experience. It does not seem wise to attempt to pull the fragments apart to improve their relationship to each other but it is important to apply a fixation dressing to prevent the fragments from being dislodged during care of the patient. This is most likely to occur from the fourth to sixth week after the injury, when the blood-clot surrounding the bone ends becomes organized and the soft callus starts forming.

These cases are treated by application of a plaster spica but abduction is not important and it is usually applied in the most comfortable position possible. It has been my experience that these bones usually become united in from 10 to 12 weeks and do not need a second plaster.

Fractured hips do not unite rapidly. The first plaster is usually allowed to remain on for a period of 8 weeks but at the end of that time, if union can not be demonstrated by physical examination supported by x-rays, it becomes necessary to apply a second plaster cast for a like period of time. I have frequently found that it takes this second period of immobilization before nature produces a solid bony union. If one is unfortunate enough to still have a nonunion at the end of this second period, it is fair to assume that the hip is ununited and will require one of the operative types of treatment. This is the favorable time for such treatment for the bone ends have not been worn down by at-

tempted weight bearing. When the bone-graft peg or the reconstruction operation is done at this time the results are very satisfactory.

Frequently, however, the patient is advised to attempt weight bearing in the hope that the stimulation of such exercise will favor bone growth. This seldom follows, and what happens is the wearing down of the bone ends from grinding together, and then we not only have an ununited fracture but also one in which the chances of best results by operative treatment have been lost.

Fractures of the Femoral Shaft. In dealing with fractures of the shaft of the femur we have quite a different problem. These cases must be considered under 2 general classifications; first as to the age of the patient, and second as to type of fracture—transverse or oblique.

Every fracture, regardless of type, should have at least 1 good attempt at closed reduction before more complicated treatment is undertaken. This particularly applies to transverse fractures. We all have seen transverse fractures, soon after injury, before there has been time for marked muscle contraction, that could be manipulated and with very little difficulty locked end to end. The application of a well-fitting plaster spica at such time usually insures a good result. It is important, however, that we apply a cast so that the fragments do not become dislodged inside. I have found a double spica best. That is, one which includes the uninjured thigh down to the knee, and I like to incorporate a supporting stick from one thigh to the other, as it makes handling the patient much easier.

Oblique or comminuted fractures frequently can be improved by manipulation but some type of traction must be used to prevent shortening from contraction of the thigh muscles. I have found the use of skin traction by moleskin, with the Thomas splint and Balkan frame, very helpful. By this method I have applied as much as 45 lb. traction. Usually a few days of this amount is sufficient to accomplish the reduction of fragments and they may be maintained in alignment by much less weight.

Economy demands that a man who has sustained a fractured femur receive that type of treatment which will replace him at his work with as little loss of time and as nearly a normal leg as possible. With this in mind, I think it is important that the best possible position be obtained so that union will be effected promptly and there will be as little joint disturbance as possible from prolonged fixation and the strain of a malunion. For this reason, I have leaned strongly toward open reduction in cases where satisfactory position could not be easily obtained by manipulation. Many times it is only necessary to remove a portion of lacerated muscle from between the bone ends and replace the fragments, finding that they are held fast once they become engaged. If there is a tendency to slip apart, holes can be bored in the bone ends and the fragments held securely with kangaroo tendon. This is a simple operation, and is followed by a minimum of shock and little danger of infection. Of course, I realize that such treatment cannot be carried out under all conditions but any surgeon with average mechanical ability can develop a technic in any good hospital that will make such treatment safe and effective.

After operation I have found use of the plaster cast most satisfactory for purposes of fixation. We operate on all our cases on the Albee traction table and apply the cast while the patient is still in position on the table. This prevents the possibility of dislodging the fragments while the dressing is being applied. The use of absorbable suture material makes dressing of the wound unnecessary until the cast is removed.

In badly comminuted or compound fractures, particularly where there is laceration of large amounts of soft tissue, it seems wise to use skeletal traction, so that the leg may be suspended and held in place while the soft tissue wound is being dressed. Personally, I like to use the tongs in preference to the Steinman nail which completely transfixes the bone. I think much of the trouble which follows its use can be prevented by care as to asepsis in applying the tongs and careful pro-

tection of the wounds during subsequent treatment.

Generally speaking, in dealing with fractures of the shaft in children it is not necessary to obtain such perfect anatomic apposition of fragments as in adults. General alignment, however, is important. An angulation which causes stress or strain to be applied to any of the joints is capable of causing deformities that are difficult to overcome. Recently I studied the results of 94 cases of fractured femurs in children 12 years of age or under, and found that nature had reduced the shortening that existed 8 weeks after the injury by at least $1/2$ to $2/3$ in a period of 18 months after discharge. Children do not develop limited joint motion from prolonged fixation; 8 or 10 weeks immobilization does not cause stiff knees, hips or ankles as it does in adults.

In children up to 4 years of age the suspension treatment recommended by Bryant has proved most satisfactory. Both legs are suspended overhead by application of moleskin so that the buttocks are lifted free from the bed. Here the weight of the body acts as counter traction and the length of the leg is maintained. This is the most simple and yet the most satisfactory type of dressing for small children. In this position they cannot wet or soil their dressings and thereby destroy the efficiency of the treatment. In these small children union is usually solid in 4 or 5 weeks but frequently they are suspended a while longer to prevent refracture through inability to gain coöperation of the child. The simplicity and efficiency of this method of treatment recommends it particularly to those who cannot always command more elaborate apparatus.

In older children we must obtain traction by other methods for they do not tolerate suspension. As previously stated, if one can get the fragments of a transverse fraction engaged by manipulation a well-fitting spica will usually hold it until solid. In the oblique or comminuted fractures traction must be maintained. Recently I have used a new type of apparatus which I feel is original and seems to meet the indications. The usual single plaster

spica is applied only in this case to the uninjured leg. The ring is removed from an ordinary Thomas splint and a small flat piece of galvanized iron is riveted to the end of each arm of the splint. These are incorporated in the plaster; the longer one just above the hip on the side from the fractured leg and the shorter one on the inner side of the opposite thigh. When the plaster becomes hard they are held firmly, and with moleskin stickers applied to the leg, traction can be applied by a windlass over the end of the splint. As the leg is pulled down the cast is pushed up but because the opposite foot is included in the dressing at a position of right angle the counter-pressure is entirely against the sole of the uninjured foot. This being well padded with felt can tolerate considerable pressure without any bad effect. With this dressing it is possible to carry the children around freely; they can be moved to the porch or x-ray room without danger of disturbing the fractured fragments. Since using this type of dressing I have found the care of these cases much easier and the results better.

I have been much interested in studying the length of time it requires different individuals to unite their bones solidly. It varies widely and therefore these cases must be followed closely by x-ray tests. I recently had a fractured femur in an adult that was solidly united on the nineteenth day after injury, and we are all familiar with cases that require 10 to 12 weeks before callus can be demonstrated. I have found it helpful to remove the plaster cast when x-rays show sufficient callus and allow the patient to get around in a well-fitting caliper walking splint which is used until the leg is solid enough to bear weight. I do not feel we can definitely set the length of time required for the union in any case. It is entirely an individual matter and can be judged only by x-ray examinations.

In summarizing, the following points should be stressed:

(1) The treatment of fractured femurs today entails increased responsibility. In practically all cases hospitalization becomes necessary because of the need of special apparatus.

(2) Too many fractured hips in people

past middle life become ununited because of inadequate treatment. The application of a well-fitting plaster spica usually adds to the patient's comfort.

(3) In children general alignment rather than absolute anatomic apposition of fragments should be sought.

(4) If transverse fractures can be locked, immobilization is sufficient. Oblique and comminuted fractures must be treated by traction.

(5) Open reduction of fractured femurs in adults can frequently be resorted to with safety and often facilitates an early result.

TRAUMA OF THE SPINAL COLUMN

CARL R. KEPPLER, M.D.,

Newark, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

In assuming the task of bringing before you a treatise on trauma of the spine, I am fully aware of the difficulty of the work which I am undertaking, and am cognizant of the need for making the subject as clear, brief, and comprehensive as possible, and at the same time of covering in detail its salient features. While, by the anatomist and the orthopedic surgeon the condition of spinal traumas, with their various degrees of destruction of the bony, cartilaginous, ligamentous and muscular parts of the vertebral column have been recognized, described, and treated, it is only within quite recent years that injuries to the spinal column have been more specifically adjudged their various severities and complications. There is no question that the x-ray and the more careful comprehensive orthopedic and rehabilitation study of spinal injuries have brought this about.

I will now pass over, as briefly as possible, the anatomic consideration of the vertebral column in connection with its flexibility, its weight bearing capacity and its application of usefulness to the general body and occupational need. We have, as you all know, 5 distinct portions of the vertebral column: (1)

the cervical portion; (2) dorsal or thoracic portion; (3) lumbar portion; (4) sacral portion or sacrum; and, (5) coccygeal portion.

The first of these divisions, the cervical, is of necessity and by nature the most flexible portion of the spinal column; and its vertebrae, outside of the atlas and axis, which are quite firmly superimposed, are sufficiently separated, small and movable, to accomplish this end.

The dorsal portion is, in contrast, fixed and but slightly flexible, due to the close relationship of the vertebrae, and the overlapping of their posterior processes, and the fact that they are conjoined by and support the related interposed ribs, protecting with them the vital, rigid chest cavity and its contents.

The lumbar spine is formed by large, square, supportive vertebrae with short posterior spinous, and slender transverse processes, sufficiently separated by the intervertebral discs, so as to permit free trunk bending in all directions, and trunk turning and twisting, but, combined with this freedom of motion, is pronounced power of weight bearing. This lumbar portion rests upon the sacrum, which forms both the keystone of the pelvic bridge and the base of the entire trunk, for it is upon this sacral portion that the main task of proper body support rests.

The sacrum is a united, bony, wedge-shaped portion of the spinal column, so fixed in the pelvic ring, with its broad surface above and tapering down to a narrow point at its lower end, as to hold the entire pelvic girdle or bridge in proper alignment and in this way to balance the weight of the superimposed trunk and to allow the activity of its various movements to take place normally.

The coccygeal, or smallest portion, situated at the lower end of the spine, is usually considered insignificant, but proves at times a very important and annoying element of the vertebral column, when injured.

As for the curves of the spinal column, normally there are none in the lateral plane; that is, seen from behind, it follows a vertical line. Anteroposteriorly, however, we find an anterior curve in the cervical portion, a posterior long slight curve in the dorsal region,

and an anterior curve in the lumbar and lumbosacral regions; usually all slight but needful, to keep the spinal column erect and in balance.

In view of these anatomic and postural considerations, it is quite plain that just as in any erect column, whether flexible or rigid, injuries to the base of it, setting aside in this instance, visceral, neural, or spinal cord complications, are of greater importance in regard to the percentage ratio of disability than are those of its upper portion; so that, given the same amount of spinal injury, we must be more watchful of the progress and more guarded about the prognosis of trauma to the lower lumbar or lumbosacral portions than of those to the dorsocervical portion. Besides, in studying the subject, one must by no means lose sight of the 2 causative factors, direct and indirect trauma. By direct trauma is meant an injury to one or more parts of the spinal column consequent upon direct violence applied to these parts, either by powerful blows, by falling directly on the back upon a hard object, by being pinned beneath a heavy falling mass, or run over by some vehicle, with distortion, crushing, dislocation or fracture of the vertebrae or the intervertebral discs, or both. The term indirect trauma, however, is applied to injuries to a part of the spinal column caused by landing after a fall, more or less severe, on either the head or the feet; or it may be employed, when by extreme muscular action upon the spinal column during an accident, or by over-strain and over-lifting, or when by the twisting of one portion of the trunk upon the fixed tense other portion, as happens in being thrown or suddenly violently felled, some part of the column gives way and suffers injury. Another factor in studying and evaluating spinal trauma, is consideration of the amount of immediate injury, the indexing by local and general physical, visual and activity tests, as well as by x-ray findings, of the amount of immediate injury sustained, and in this manner, the forming of definite and accurate conclusions as to the remote and permanent effect of the injury upon the person, in respect to his general health, his usefulness, and his future working capacity.

One more factor in the study of spinal trauma is consideration of the soft supportive structures of the spinal column, such as the muscles, ligaments, and intervertebral discs. Tearing of the supportive ligaments permits displacement of the joint facet or facets; tearing of the muscles, or their attachments, causes a loss of function and activity in one or more planes of functional directions; and tearing or fracture of the intervertebral discs may, according to their severity, either produce an incidental, passing disability and deviation, or become a fixed, increasingly destructive and generally weakening debility. If, therefore, after some injury to the spinal column, the clinical picture is quite apparent but x-rays show no bony fracture of any of its parts, the amount of laceration or division of these soft parts must also be carefully considered and studied before deciding on the amount of ultimate recovery. I wish, again, to emphasize the need of very careful x-ray study of any and all spinal injuries in connection with the clinical examination.

One fact stands out, namely, that spinal injuries and fractures, may result and do result from relatively insignificant trauma in many cases, and that the extent of the injury or fracture often escapes proper diagnosis because of the very prevalent idea that they can only result from severe violence, and are always more or less associated with nerve injury or paralysis.

In entering now upon the subject of spinal trauma itself, I shall endeavor to tabulate and describe these conditions as briefly as possible, appreciating at the same time that some dovetail the others, in clinical appearances, so closely as to be difficult of definite individual tabulation. Sprain or strain of the various portions of the spinal column are frequent sequels of present day manual occupation and are due, in the main, to sudden over-exertion in overcoming outward resistance and force. They may also occur during severe athletic games and exercises. The most frequent regions involved are the lower lumbar, the lumbosacral and the sacral portions; and the injury may extend from the trivial, short-lived, localized painful but passing over-

stretching of the part, to a permanent, annoying and completely debilitating and deforming condition. In the lesser form, there is the history of a sudden sensation of the tearing or snapping of something in the lower back while pushing or lifting a heavy object, or while bending forward quickly, with no other resultant outward sign than a marked tenseness in the muscles and tissues over the damaged part, with limitation of movements and functions of the trunk. The x-ray findings are negative, there are no other definite muscular and neurologic changes and, usually, with proper treatment and sufficient rest, the condition in time passes off. This strain or sprain, however, when of greater proportions, has so many sequels and complications that it will be possible to describe and classify briefly only the main factors of the same. Thus we find such a serious lesion as sacro-iliac disarticulation or separation, following over-strain of the pelvic ring and trunk, to be due to an over-taxing of the muscular effort of the person, with a sudden, correlated increase in the resistance encountered. This may occur while lifting heavy weights, or may be caused by being thrown some distance from a rapidly moving object, as we find in railroad and automobile accidents. The clinical picture is that of serious disablement to the lower trunk and back, with fixed inclination of the trunk to either side and usually away from the injured one, very limited lateral trunk bending and a localized, painful area and distortion over the affected sacro-iliac joint, usually a spasm of the hamstring muscles and sometimes a spasm of the psoas iliacus of the involved side. I realize that I am leading up from the ordinary sprain to the more serious spinal traumas such as dislocations. Traumatic dislocations of the lumbosacral articulation or spondylolisthesis is a forward displacement of the fifth lumbar vertebra upon the sacrum. The clinical appearance is that of abnormal hollow back, with a peculiar, fixed, uncomfortable attitude of the trunk upon the pelvis. All bending movements of the trunk are restricted and decided pain and discomfort are present. Its immediate effect on the injured person is not of an apparently serious nature but the condi-

tion becomes increasingly disabling as the muscles relax and weaken, and is a material and stubborn distortion to correct.

Dislocation of the upper lumbar and dorsal vertebrae, as they are usually associated with spinal cord injury, need hardly be a part of this clinical discussion on trauma of the spinal column.

Dislocations of the cervical vertebrae can, however, occur without cord involvement and, if uncorrected, are disabling, but at the same time may leave a person useful even though the neck is misshapen and stiff. It is, of course, understood that the dislocations should be corrected, if possible, so long as there is no fear of injury to the cord.

We now come to the subject of fractures of the spine. I shall first consider them in brief from the standpoint of their location, and next in regard to the ultimate disability percentage of these various locations. Fracture of the coccyx is usually due to a direct injury, as from a heavy kick or a direct fall. The symptoms are those of very great discomfort in sitting, or during the act of defecation. Fracture of the sacrum does not usually occur without pelvic floor injury and fracture, and is therefore, better relegated to the category of pelvic injuries. Fracture of the lumbar, dorsal and cervical vertebrae are best classified within the following divisions: (1) fractures of the transverse processes; (2) fractures of the spinous processes and lamina; (3) linear or crushing fractures of the vertebral bodies.

Fracture of the transverse processes: This injury usually involves the lumbar portion of the spinal column, because the transverse processes of these vertebrae are comparatively slender and long and have attached to them the insertions of the very powerful quadratus lumborum muscle. Fracture of these processes is usually due to indirect violence, such as side blows on the buttock or loin with consequent immediate extreme contraction of the quadratus lumborum muscle to retain or regain the lost balance. This violence resulting from muscular action alone, may tear or break off one or more of these processes. The clinical picture is that of a person standing

somewhat bent over, with loss of the usual anterior lumbar curve, and with marked spasm of the lower back muscles, slight flexion of the hip of the injured side and restriction of lateral trunk bending, especially toward the injured side. There is tenderness to pressure, sometimes very acute, over the injured processes. X-rays give us a more or less definite picture. Recovery from these fractures is generally satisfactory, but undetermined on account of the possible complications of ligamentous and muscular injury.

Fractures of the spinous processes and laminae: These may be fractured either alone or in connection with other vertebral injuries. The fracture may be caused by localized injury or by muscular action alone; the more frequent cause is by direct violence. Usually, this fracture is uncomplicated and the ligaments and muscles prevent any vertebral displacement. The symptoms are localized pain, tenderness over the fractured process or processes, and usually there is some induration felt on palpation. X-rays make the diagnosis possible. Recovery is usually uneventful and is practically complete in about 1 year.

Fractures of the vertebral bodies. This type of injury is usually due to indirect violence, as from blows on the head, buttocks, or feet in falling from some height, or to a very forcible hypertension of the trunk in falling and rolling down an incline. The fracture is either of a linear or crushing type with, or without, impaction of the spongy mass of the vertebral body and with, or without, a crushing together of its upper and lower surfaces, and a mush-rooming or widening of its body. The midportion of the spine is the one most often involved and the symptom complex is, in the linear fractures of the bodies, at first, slight. In the more severe crushing type, however, the intervertebral disc may also be torn or ruptured. The progressive symptoms are marked spasm of the muscles and ligaments with localized tenderness to pressure over the fractured vertebra. These are long persistent and later there is slow or rapid formation of a kyphosis, according to amount of the primary injury. X-rays show the bone destruction and the deviation and de-

formity according to the amount present, but no apparent intervertebral disc changes, thus differentiating it from progressive tuberculous spondylitis, which attacks and breaks down all spinal structures. The cord is usually not involved, but localized and peripheral nerve involvement, causing distinct muscle weakness and neuralgic pains in the lower extremities, are either present or soon set in. Unless the injury is recognized and treated early, to prevent further destruction, it causes marked chronic spinal involvement and general invalidism. In some cases of intervertebral disc but only slight bone injury, the ultimate resultant deformity may be found to be a twisting or a lateral curvature of the spine instead of a kyphosis.

In closing the clinical description of spinal injuries, I wish also to draw your attention to a condition of so-called chronic traumatic spondylitis, known as Kümmell's disease. It is a peculiar form of progressive rarefying osteitis of the spine following injury. Whether it is a sequel of former fracture of the vertebral body or is some other unrecognized former spinal injury, is uncertain. It causes a softening of the vertebra of much greater intensity than the injury, apparently, would produce, and breaking down of the spinal column with increasing forward bending, disability and weakness, until complete breaking down of the spine, and paralysis, develops.

As for the treatment of the various spinal injuries, I will again endeavor to be as brief as possible.

(1) The treatment of ordinary back sprain or strain, unless complicated by greater injuries, follows of itself the symptom complex and the clinical picture; and consists of supportive adhesive plaster strapping of the part, with or without counter-irritation.

(2) For sacro-iliac sprain repeated physiotherapeutic treatments and massage should be given over the involved portion. Between these treatments, the lower back is fixed by adhesive plaster straps, extending from the front border of one side of the pelvis to the other and holding a felt pressure pad against the sacrum. The after-treatment consists of application of a suitable, well-fitting sacro-

iliac belt. Both this treatment and the belt wearing must be long continued.

(3) Dislocation of the sacro-iliac joint, as well as fractures of the lateral processes of the lumbar vertebrae, are successfully treated with a combination plaster of Paris jacket-spica, extending from the midchest region down to the knee on the involved side. This jacket-spica immobilizes the body and the pelvis and supports them; relieves the psoas spasm, the marked inclination of the trunk and soon after its application allays all pain. It should be worn 6 to 8 weeks after the injury. Then it is renewed for the same length of time and is, if necessary, followed by the regular plaster of Paris jacket including the entire trunk and pelvis. After a period of about 6 months a modified back brace is applied which supports the entire lower trunk and which is worn for at least a year, combined with such physiotherapeutic and reconstructive treatments as are indicated.

(4) Fractures of the lamina and spinous processes are best treated at first in a plaster of Paris bed, in complete recumbency for about 6 weeks. This bed may be shaped to the back and the rear half of the trunk and legs, straps holding the body upon it, or in more extensive and serious injuries, a front shell may be added to the rear shell, or bed, encasing the front part of the trunk, so as to give more stability. After this, if the condition of the patient so indicates, a plaster of Paris jacket should be applied, and in it the patient is gradually permitted to sit, stand and walk. If the progress is satisfactory, and there are no sequels or complications, the jacket may, in time, be replaced by a spinal brace, which should be worn about 8-10 months, with such therapeutic treatments as are required.

(5) Traumatic spondylolisthesis is, as before said, very disabling, and the correction of the deformity should be endeavored as early as possible. Even then, due to the weakness following the injury of the lumbosacral articulation, long continued support is necessary. Whether the various operative fixation methods, of late undertaken and described by

several authors, will be more helpful and effective, remains to be seen.

(6) Crushing fractures of the spine, without apparent immediate resultant destruction of the vertebral bodies, must be supported and protected as soon as possible, so as to prevent remote complications. The application of a plaster of Paris jacket with even a head and neck support, if the injury is at all high in the spinal column, should be applied immediately. This jacket should be worn for about one year, renewing it every 3 or 4 months as the symptoms and progress indicate, and then it must be followed by a supportive back brace combined with reconstructive treatment, for quite some time to come. In this connection and to emphasize the need of careful treatment, I desire to quote a few lines from Willis and Cochrane's book on "Fractures and Dislocations": "In considering injuries of the extremities and particularly those in the neighborhood of the articulations, it has been pointed out that in the case of every joint there are good and bad positions for fixation, and that when prolonged immobilization is required the earliest restoration of function may be expected if the optimum position is employed and that, when ankylosis is likely to be the result, the part should be fixed in the position which assures the maximum usefulness of the part. The same considerations hold in the treatment of injuries of the vertebral column, only the more so, because the result of faulty spinal attitude are not limited to the purely static effects from alteration of the mechanics of weight bearing, but may be productive of disturbances which affect the general body health. In spinal fractures, prolonged fixation is accomplished in a position with the deformity and with the spine in a position which assures strong, painless use and the maximum functions of the related body structures. Such a position is one in which the normal curves of the spine are slight. The lumbar curve, in particular, being flattened, the abdomen retracted, and the costal margin well elevated. This position is not only the best from the standpoint of function, but also to the great-

est degree promotes the comfort of the patient."

(7) For dislocation of the cervical vertebrae, recumbent treatment should be employed at first, with light traction to the head and body and prevention of head rotation and body motion until shock is overcome. Then the endeavor is made to re-align the dislocated vertebrae without much force, followed by application of a plaster of Paris jacket, which should, at first, include the head, neck, shoulders and body. The after-treatment consists of wearing a leather collar for some years, combined with reconstructive treatments.

(8) In the treatment of chronic spondylitis, that is Kummell's disease, the use of a well-fitting spinal corset with a head rest is essential. The disease has, of course, no definite limitation of time, so the support usually has to be continued throughout life.

In conclusion, I wish to draw your attention to the fact that just as in the tabulation of spinal injuries the neurologic injuries complicating the same were not considered, so now the description of their treatment must of itself be omitted. In view of the fact that tuberculous spondylitis is so closely related and so often due to spinal trauma in childhood, the consideration of such trauma would necessarily lead to the description and the study of the treatment of tuberculous spondylitis; therefore, injuries to the spinal column in childhood were also omitted from this treatise.

DISCUSSION

Dr. Henry B. Kessler (Newark): Dr. Keppler covered so comprehensively a number of conditions of the spine in so short a time that I was very sorry he didn't have an opportunity to go into acute spinal cord injuries and complicated fractures. In view of the presentation given to us this afternoon by Dr. Dandy, I think it was rather apropos to consider some of the conditions of the spinal cord that complicate fractures or other injuries of the spine itself. My attention was particularly called to this fact this morning when I saw a young girl of 16 who fell through a skylight. When she was picked up she was unable to move her lower extremities. She had incontinence, loss of reflexes and loss of sensation. The question of doing a laminectomy was considered but in view of our past experience and the poor luck we have had with laminectomy, we have adopted a conservative attitude. I feel that the same teaching that was outlined by Dr. Dandy in relation to treatment

of fractured skulls applies likewise to the treatment of fractured spines or injuries of the spine causing cord injury.

One of the things that bothers us a great deal in low back pain is the frequent finding of anomalies in the lumbosacral angles. I met a South American who lives down at the very southern tip of South America, at Tierra del Fuego, and he tells me it is a common thing to find sacralization of the fifth lumbar vertebra, and where he does get one with a lumbarization of the fifth lumbar vertebra, the patient usually comes with pain, so it seems that these anomalies are expressive of a certain biologic atavism, because we so frequently see pain in those who do have anomalies, whether of the transverse process of the fifth lumbar vertebra or whether due to increase in extra segment in the lumbar vertebra or some phenomena in the articulation.

Dr. Maurice S. Avidan (Newark): I have enjoyed the papers of Dr. Weigel and Dr. Keppler, and I feel that they should be of considerable interest to the general practitioner. There are several phases of fractures that one learns after seeing a large number of cases. This is particularly true in spinal fractures. First, is the extent of violence where one needs not sustain a very serious injury in order to have a fracture. Another is the extreme importance of taking lateral views of the spine. Chip fractures of the anterior portion of the body of the vertebrae, compression fractures and anterior dislocation of the fifth lumbar vertebra, known as (spondylolisthesis) are frequently overlooked and undiagnosed because of failure to take a lateral view at point of injury. As a result of which the medical examiner has insisted on lateral views in all spine cases that appear before him for estimate of disability in the Compensation Bureau.

The extent of violence in fractures is somewhat interesting. For instance, a compression fracture may result from a fall of only a few feet, in which case it is due to the pressure caused by the sharp flexion of the spine. The idea that one has to fall from a great height in order to sustain a spinal fracture is erroneous. Neither is it always necessary to have direct violence. There are cases where extreme heavy lifting has produced an anterior dislocation of the fifth lumbar vertebra. Therefore, I would suggest that the general practitioner should take x-rays, 2 views in all back cases where complaint is persistent, regardless of the extent of trauma.

Dr. Weigel's paper on the treatment of hip fractures should also interest the general practitioner. The treatment has been greatly improved since inauguration of the Whitman abduction method. Whitman can truly be called the father of the modern treatment of hip fractures. I should like to ask Dr. Weigel what percentage of hip fractures unite in people over 60?

Just a word on Dr. Keppler's paper on sacro-iliac conditions. The diagnosis of sacro-iliac in back injuries is very misleading and very perplexing. Some will call any low back pain a sacro-iliac strain or separation. They will base their diagnosis entirely upon the interpretation of the radiogram. The x-ray diagnosis of sacro-iliac relaxation or subluxation has been disproved in the majority of cases. The sacro-iliac is the most powerful joint in the body though it has very little motion. At a recent meeting in the Academy of Medicine of New York, the consensus of opinion was that it is impossible to get a sacro-iliac relaxation or subluxation without a fracture of the

ilium or pelvis. Most of these so-called sacro-iliac conditions are really a form of fascitis or myositis and should be treated as such.

Dr. Weigel: I have nothing further to say, except in answer to Dr. Avidan's question I think the percentage of results we can get in people over 60 years of age depends somewhat upon their general condition. I have no definite statistics to offer at this time, although I feel sure it is safe to estimate that if these patients are treated more energetically and actively, as is the common trend in general practice, we can expect at least 50% of unions in these people. It is very difficult to tell always whether that union becomes a solid bony union. I don't think that is always necessary. I think some of the fibrous unions are very functional in old people but I think active treatment will give us a larger percentage of results than we are getting at the present time.

ABDOMINAL MYSTERIES

DAVID B. ALLMAN; M.D.,
Atlantic City, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

A most excellent and simple classification of abdominal wounds is that given by de Tarnowsky in his "Emergency Surgery": First, closed wounds with or without internal lesions; second, open wounds without penetration; third, open wounds with penetration.

It is the closed wounds with internal lesions that cause most concern and present the most mysterious problems that I know of in surgery. These closed wounds may be anything from the simplest form of injury, which is a contusion of the abdominal wall, to any severe major intraabdominal injury of which we can find no symptoms or sign upon a cursory superficial examination. These internal lesions may result from anything; from the most severe accident down to and even including, according to Da Costa, a violent oscillation which may rupture a hollow viscus. Certainly, we have all seen serious abdominal injuries without wounds to the abdominal wall but with concomitant intraabdominal complications, such as rupture of hollow viscus, hemorrhage from the liver, rupture of the spleen or kidney. It is not these frank and open cases of which I speak to you today, but rather concerning those cases where there is no, or at least very little, evidence upon ex-

amination of the abdomen of any serious intraabdominal complication, but where the patient by his general symptoms, or from the symptoms which he later develops, leads us to believe that there has been some intraabdominal calamity.

The degree of violence necessary to bring about rupture of an internal viscus varies greatly according to position of the patient, his preparedness to receive a blow or resist a fall, the strength of the abdominal muscles, and whether the viscera are distended or empty at the time of the accident. Hollow viscera are more liable to be torn when distended than when empty. Of medicolegal importance in industrial cases is the fact that pathologic changes in the liver or spleen, such as cirrhosis and malaria, render those organs extremely friable and subject to laceration by quite trifling violence. Certain of the viscera are more liable than others to injury: the third part of the duodenum, where it crosses the vertebral column may be torn, while the balance of the small intestine with long mesentery slips away so easily that lacerations are comparatively rare; liver and spleen are partly protected by the ribs and are ruptured by the passage of a wheel over the lower part of the chest or some other serious injury to this part of the human frame; the iliac crests protect the ascending and descending colon; the pancreas is in the most protected portion of the abdomen and is rarely injured unless violence is so great as to bring about immediate death.

Diagnosis of the intraabdominal condition in injuries where there is no open wound of the abdominal wall presents many difficulties and is often quite mystifying, but usually can be made upon the following symptom-complex: Abdominal shock is the sequel of any sudden and violent injury to the peritoneum, abdominal viscera and sympathetic plexus. The patient may be momentarily unconscious or simply collapsed, with a small, rapid, low-tension pulse, pallor and cold sweat. Within a few minutes he becomes restless, moans and complains of violent abdominal pain. Often he vomits, and he may have involuntary micturition and defecation. If taken early, blood

pressure will be found quite low. All of these symptoms are met with in the absence of actual visceral injury; the chain of symptoms is quite common in prize fighters who have been struck over the solar plexus. They are quite transitory. Rest and watchful expectancy will soon clear the diagnosis.

With a large penetrating wound, external bleeding makes the diagnosis easy. With stab or bullet wounds, the soft tissues close up so rapidly that there is only rarely any external escape of blood from the visceral lesion. Where hemorrhage is the chief injury, the patient remains in shock and the pulse, instead of diminishing in rate, becomes more and more frequent, with increasing restlessness and "air hunger". The abdominal walls usually remain flaccid—a most important differential sign—and percussion may reveal an effusion into the peritoneal cavity. The dullness shifts with change in position of the patient. If he should faint shortly after receiving injury, the diagnosis may be rendered extremely difficult. Primary loss of blood induces loss of consciousness; the bleeding stops and the pulse-rate and other symptoms of "shock" disappear rapidly; as the heart beat increases in strength, bleeding starts up again and the second collapse may be fatal. This sequel of events is particularly true in cases of rupture of liver or spleen.

The most marked feature of injury to a hollow viscus is that of commencing peritonitis. Rectus rigidity is marked, the abdomen becomes distended, pulse-rate rises and the vomiting continues; there often is a temporary recovery from initial shock and onset of peritoneal defense which may lull the surgeon into a false sense of security.

Abdominal rigidity is an early and positive defensive sign. It does not give the surgeon an immediate clue to severity of the lesion, for it may appear in simple wall contusions as well as in peritoneal or visceral lesions. It may be present in cases of retroperitoneal hemorrhage, and in some intrathoracic lesions even when the diaphragm is not involved.

Cutaneous hyperesthesia of the abdominal wall is nearly always present to a variable degree.

Absence of liver dulness always points to rupture or perforation of a hollow viscus.

Pain is an early sign in all lesions. It is spontaneous in type and may be continuous or synchronous with attempts at peristalsis in injuries of hollow viscera. It is absent or slight in severe hemorrhage from any of the solid organs. Generally speaking, wounds of the stomach and small bowel are more painful than those of the colon.

Ability to spontaneously expel gas per rectum is of diagnostic importance. Some surgeons state that: "If, after an abdominal injury, the patient can expel gas, one can be certain that there is no penetrating wound of a hollow viscus." Absence of this sign has no value unless it is persistent; obstipation is in these cases an absolute sign of peritonitis.

In doubtful cases catheterization and passing of a rectal tube should always be employed to ascertain the possible presence of blood in rectum or bladder. Do not inject fluid into the bladder or rectum, as both procedures are extremely dangerous.

DIAGNOSTIC SUMMARY

(1) In any lesion of the abdominal wall, and in bullet wounds where there is even remote possibility of abdominal involvement, the mere question of penetration is, *per se*, of relatively small importance because many serious visceral lesions occur without any external wound.

(2) Can internal hemorrhage be ruled out? This is often extremely difficult. In the absence of bloody stools, bloody vomitus, bloody urine or external bleeding through an abdominal wound, the pulse is the only guide; and differentiation between the pulse of shock and that of hemorrhage is questionable.

(3) Are there clinical symptoms pointing to traumatic peritonitis? Local abdominal rigidity usually indicates the establishment of a protective zone; a sign of both diagnostic and prognostic value. A freely movable abdomen, though rigid, indicates a rather slight intraperitoneal injury, but it may exist in the presence of severe hemorrhage. A flaccid abdomen with marked symptoms of shock is

usually associated with extensive laceration of small intestine and is of bad omen.

Some of the conclusions of the Interallied Surgical Conference, to which I subscribe, are as follows:

(1) As a general rule, one should systematically operate on all recent abdominal wounds. Exception may be made when it is certain that the lesion is limited to the liver or kidney, without symptoms of severe hemorrhage.

(2) Surgical intervention should be made as early as possible, except when the patient is in severe shock. In case of doubt between shock and hemorrhage, it is better to operate than not to do so. After a delay of 36 hours, a routine laparotomy should rarely be performed.

(3) Wounds of the large vessels of the liver, spleen, kidneys or stomach are usually fatal before patients can reach the operating table.

(4) Wounds of solid viscera are not so dangerous as those of hollow viscera.

(5) Wounds associated with herniation of bowel or stomach give a poor prognosis.

(6) Wounds of the stomach, colon, and especially of the small intestine, require careful exploration and accurate repair, but in posterior wounds involving the colon great care should be taken not to convert a retroperitoneal into an intraperitoneal condition.

(7) Wounds of the liver, kidney and spleen should usually be treated by exploring, cleansing, and using gutta-percha packing, if bleeding. Be sure that no hollow viscus has been damaged before closing the abdomen.

(8) Avoid resection if possible.

(9) The choice between end-to-end and lateral anastomosis depends entirely on the individual surgeon's ability.

(10) Wounds of the diaphragm are neither fatal nor even to be greatly feared, as careful repair gives immediate relief and excellent results.

(11) Never leave free, unprotected guaze in the abdomen.

(12) Resection for persistent fecal fistula after intestinal trauma can be safely postponed.

DISCUSSION

Dr. George Blackburne (Newark): I was particularly interested in this paper because of the number of traumatic abdominal injuries we have been seeing in North Jersey recently. It almost brings back the days of war surgery, and in this connection I would like to mention a rule which we had and which we adhered to in those days: "Unless an abdominal wound is operated upon very promptly, the patient has a better chance of recovery with rest, morphin, and no operation."

Increasing rigidity and shock following abdominal injuries are indications for exploration, and no harm will be done in that percentage of cases in which no lesion is found. If there is injury of a hollow viscus, or hemorrhage from one of the solid organs, prompt intervention will probably save the patient's life. When in doubt as to whether or not to operate, the time can be well spent in obtaining an x-ray or fluoroscopic examination for an air bubble over the liver denoting perforation of a hollow viscus, and frequent hemoglobin examinations to determine if active bleeding is going on.

If the abdomen is to be opened, it should as a rule be by a long right rectus incision and exploration, ending with an evisceration of the small bowel to the right and examination of every inch of same. This is of especial value in bullet and stab wounds.

THE RELATION OF TRAUMA TO THE ETIOLOGY OF INGUINAL HERNIA

F. WILLIAM SHAFER, M.D.,
Camden, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

The Chairman of the Scientific Committee asked me to prepare a paper on "Traumatic Surgery". As far as I have been able to ascertain, this is the first time that a symposium on this subject has been arranged by our society, the oldest State Medical Society in our country. Therefore, at first thought this subject might appear to be something new; but this is not so, for it is perhaps the oldest form of surgery known. The art of traumatic surgery has always been practiced by the ethical surgeon but it is just beginning to be recognized again as a distinct and important field of surgery.

It was not until foundation of the Collège de St. Côme, in the thirteenth century, that surgeons of the short robe, surgeons of election, lay surgeons, itinerant surgeons, the uneducated surgeons, were elevated from the vagabond class and placed upon the same high standard with those surgeons of the long robe

who were known as the surgeons of necessity, or traumatic surgeons.

And so, wound surgery, the old surgery of necessity, now called traumatic surgery, is occupying the mind of the modern surgeon.

The problem of inguinal hernia is one of the most interesting, fascinating, and important subjects in surgery, and the question of relation of trauma to its production has been controversial for centuries.

The old English term *rupture*, which means a tearing asunder of the tissues, is largely responsible for the traumatic theory of hernia, and should be altogether discarded. A program of education relative to hernia should be inaugurated, beginning first with the medical profession itself, and carried on to the layman, and to the victims of this disease.

In order to understand this condition let us reflect a moment on the development of this part of the human body. At the third month of intra-uterine life, the testes are developed in the lumbar region just below and in front of each kidney, and behind the peritoneum. There are 2 folds of peritoneum formed; the upper, *plica vesicularis*, containing the spermatic artery and veins; the lower, the *gubernaculum*, leading down through the inguinal region into the scrotum. At the sixth month the testicle descends to the internal ring, and at the ninth month it has passed through the inguinal canal, emerged through the external ring and occupied its final position in the scrotum.

In passing it is preceded by a process of peritoneum—the vaginal process—the long neck of which, after passage of the testicle, is called the funicular process. When the testicle descends, it leaves in its trail within this long neck of peritoneum, the vas and its artery, the spermatic artery, pampiniform plexus of veins, sympathetic nerves, and lymphatics, and these structures together with the funicular process, which has now lost its potency and become just a fibrous cord, constitute the spermatic cord in the male. If for any reason this sequence of events does not follow in an orderly manner, or the fascia, muscles and tendons which enter into or take part in formation of the inguinal canal

with its internal and external rings, are not normally developed, then the 2 conditions are present for the development of an inguinal hernia; the presence of a sac and the absence of normal development of this region, either of which favors its production.

I am going to have the temerity to say that it is time to change the composite picture of text-books on the subject of inguinal hernia. Every book has followed its predecessor in using the same description and applying the same classifications of this condition. Changes are being made in other subjects as our knowledge increases, but still nothing has been added or changed in this important subject. Charcot has well said: "Disease is from of old and nothing about it has changed. It is we who change, as we learn to recognize what was formerly imperceptible." They all speak of 2 distinct classes, congenital and acquired, when one would suffice—congenitally acquired.

As I have stated above, 1 of 2 conditions is necessary for its development; the presence of a sac or the absence of a normal development of the region. If the sac is congenital then there may be a hernia with a normal structural development of the abdominal wall. If the sac is acquired, then there must be a relative underdevelopment of this region as compared to the rest of the abdominal wall. This regional developmental weakness may involve the entire abdominal wall, but not all of the structures which enter into the construction of the abdominal wall are involved to the same degree. It has always been taught that musculature is the important item in hernia development. As a matter of fact, the muscles play the least part. The fascia the most, and the tendons are next in importance. Therefore, congenital defect is always a part of the picture, and without this there can be no hernia.

If the sac is present, then the *modus operandi* as explained by Lucas Championniere, who in 1875 was the first to recognize the importance of removal of the sac in radical cure of hernia, is that the intraabdominal fat not only increases intraabdominal pressure, but this semiliquid fat is easily influenced by pres-

sure and readily protrudes at any weakened place in the abdominal wall.

Again, they all speak of 2 distinct kinds, the direct and the indirect, based upon the anatomic position of the deep epigastric artery. The direct hernia protrudes internal to this vessel, while in the indirect or oblique form it appears external to the vessel. Just why such distinction is made on this basis has never been clearly demonstrated to me. To base classification on any vessel is bad enough but to base it on the position of a vessel is beyond my comprehension. Would any one make the statement that the proper position of the appendix is just external or internal to the external iliac artery? Suppose the artery is absent or, being present, its position somewhat changed, for we know that the anatomic position of any vessel may sometimes vary from a fixed position, what then of the kind? How can this vessel possibly bear any relation to the classification of inguinal hernia? There is no relation embryologically between development of the deep epigastric artery and development and descent of the testicle. There is none physiologically nor anatomically. If we wish to establish a basis on the position of a vessel, a thing which to my mind is not only unnecessary but impractical and unscientific, would it not be better to select the obliterated hypogastric artery?

I do not wish to be misunderstood in regard to my attitude on this classification, because there is no question of fact that there is a direct and an indirect inguinal hernia. The latter enters the internal ring, follows the inguinal canal (canal of Nuck in the female) emerges through the external ring and may descend into the scrotum. The former, coming through Hesselbach's triangle, emerges also through the external inguinal ring, but does not descend into the scrotum.

This form results from some abnormality of the conjoined tendon; if too narrow it appears laterally; if too lax it pushes the tendon ahead and becomes one of its coverings; and if defective the hernia may appear through this defect. The important thing relative to these hernias is that in the indirect form the congenital phase concerns the sac, and the ac-

quired phase the abdominal wall; while in the direct form the congenital phase concerns the abdominal wall, and the acquired phase the sac. Non-recognition of this condition, I believe, explains the greater frequency of post-operative recurrences in the so-called direct hernias. Both forms become ultimately anterior to the deep epigastric vessel. The coverings are the same except that the transversalis fascia in the direct, instead of the infundibular process of the transversalis fascia in the indirect, becomes one of the layers.

Again, they all speak of the various forms of congenital indirect hernia. These varieties, as you will recall, are classified into congenital, infantile, funicular, and encysted. A condition which can be described theoretically but never demonstrated practically. A distinction without a difference. Therefore, why these classifications? After all, they are all congenital.

I have never seen a case of traumatic inguinal hernia, either direct or indirect, but I have observed many cases of non-traumatic inguinal hernia. A traumatic inguinal hernia is a surgical curiosity and so rare that with mere mention and a few words of explanation we can pass it aside. Trauma means injury, inguinal means location, and hernia means a protrusion of some part or parts of an intra-abdominal viscus. Therefore, a protrusion in this location through an injury means laceration or avulsion of the tissues, with hemorrhage and exudation, associated with all the signs and symptoms of an injury.

A traumatic hernia may occur anywhere in the abdominal wall, most likely at its weakest point; but usually not at a normal hernial opening, seldom as a direct hernia, and never as an indirect inguinal hernia.

It results from cumulative effect over a considerable length of time. The accident is the occasion not the cause; the origin being congenital. We should standardize our knowledge. There is no uniformity concerning our knowledge of inguinal hernia, at the present time. New Jersey follows the German-Swiss code on traumatic hernia, which states that it must appear suddenly with the history of an accident, be painful but have no previous his-

tory of hernia, and be examined by a physician within 48 hours. Pennsylvania follows the English code, that an excessive strain must be regarded as an injury: a strain may cause protrusion of the bowel and is compensable even though weakened by a congenital defect or preëxisting hernia.

This subject has been under a more intensive consideration during the past decade than ever before. The reason being its relation to industry. Business, society, and religion are not easily governed by established medicine or its medicolegal acts. In 1881, the first Workman's Compensation Act was passed in Germany. New Jersey passed its first act in 1916. If an employée has an inguinal hernia and it grows gradually worse, this is to be expected like the unfolding of leaves on a tree, but if it becomes incarcerated or strangulated then doubt immediately arises as to the responsibility. The old French "hernia of effort", and the old English "hernia of weakness", caused the present differences of opinion.

Pellatin and Cloquet demonstrated the true etiology of inguinal hernia in the eighteenth century. R. Hamilton Russell of Melbourne, Australia, by a most complete investigation recently came to the conclusion that practically all inguinal hernias are congenitally acquired, and exist from birth.

From the standpoint of efficiency, it is important to examine carefully every employee for a real or potential hernia, and to reëxamine every potential case at stated intervals; as only 0.5% develop hernias after examination.

CONCLUSIONS

All inguinal hernias are congenitally acquired, and therefore all have a congenital phase and an acquired phase. The abdominal wall and a sac are implicated in all inguinal hernias. These 2 phases may involve either the sac or the abdominal wall. If the congenital phase is the sac, and the acquired phase the abdominal wall, then the resulting form is an indirect hernia. If the congenital phase is the abdominal wall, and the acquired phase is the sac, then the resulting form is a direct hernia.

DISCUSSION

Dr. J. Wesley Barrett (Camden): The paper that you have heard read by Dr. Shafer certainly presents some problems that have been visualized by him in a most effective manner. He has talked about the controversial side of this subject, which has been discussed for a number of years, and I submit that he has injected something of a controversial nature into this paper that cannot be readily adjusted in accordance with all of our ideas and the ideas of our teachers, without considerable difficulty; and I fancy that many moons can come and wane before we shall come down to a plane upon which we shall all agree on this particular subject.

He has outlined very comprehensively from the embryologic standpoint the incidents and facts leading up to what we would call a potential hernia. We do know that when we examine men in industrial plants a great number of them have open rings or, in other words, they have potential hernias. But the thing that is rather problematic to my mind is how so many individuals go through arduous labor for a number of years and still hold their viscera within the abdominal cavity, while others who are subject to somewhat of a strain become the victims of hernia.

The doctor says "congenitally acquired" and yet there is a compensatory side to that. The individual who develops his physique, his musculature, and incidentally the fascia, has an abutment which is effective in holding back the viscera, whereas the other individual has the openings larger than they normally are, which tends to open wider and to let the viscera through.

I don't know how many of you were disturbed when you were studying about hernias—the funicular type, the congenital or vaginal type, the encysted type, and the infantile type. Of course, when we come to consideration of the tissues from their embryology and histology we can readily understand that we cannot differentiate them upon the operating table and therefore they may be a little bit confusing.

I don't know, however, how many of us are using this new form of nomenclature which the doctor speaks of as to the relative position, for instance, of the remains of the obliterated hypogastric and epigastric arteries. He speaks of a matter of education. I wonder how we get along with it. How many of you fellows are adopting the new anatomic nomenclature, or are holding to the old names that were in vogue when you went to college? I am talking to the older men now. What we have fixed in our minds we are just a little bit disposed to hold there because it is a motion in the direction of least resistance. What the doctor proposes is indeed ideal, and I submit that the ideals that stand before the individual do tend to determine a larger accomplishment. He who aims at the stars aims much higher than he who aims at the tree, but I question whether we are all aiming at the stars.

Of course, this question of hernia pertains very largely to the industries and to the attitude of the various states and the industrial heads relative to compensation in hernias, as to whether the hernia can be acquired incident to the occupation. It is decided now that hernia is not incident to occupation, for instance in the State of New York, and only along certain lines in the State of New Jersey where a plea for hernia incident to the occupation must be accompanied by very marked prostration. That is reasonable, because the sudden propulsion of viscera through an opening, through which aperture it has never come before, must be ac-

companied by a great deal of shock and consequently of prostration. So, those who have to do with the industrial plants have the problem before them and the examination, of course, must be made, with the registration of those who have potential hernias and the advisement of careful, well-fitting trusses, or operation. The more I see of patients with hernia, the more I am inclined to advise operation for hernia generally, and I believe that the sooner all of us come down to the basis of recommending operation for hernia the better it will be for the patients generally. I have been just a little bit moved to that end by hearing just within the last few days of one of our Camden residents who, within 24 hours notice, was sent for service to Spain. He was taken to a hospital in Spain for hernia operation, presumably for strangulated hernia. What happened to him we don't know, but after 7 days the report is that septicemia set in and the fellow died.

Dr. Merrill A. Swiney (Bayonne): I would like to ask Dr. Shafer a question. I think that at the present time the biggest questions that come up for surgeons are in the field of industry. I have a man who, 2 years ago, after a sudden heavy lifting, complained of pain in the right groin with considerable shock. I examined him and diagnosed it as a strain. He was put to bed for a couple of days and everything was all right. I examined the other side at that time and there was no hernia. About 2 weeks ago he lifted a heavy barrel and he later complained of pain on the left side. He didn't have any shock. Four or 5 days later he noticed a swelling there and I examined him and found that he had a left hernia. He was examined 2 years ago and there was no hernia. Now we find a hernia that undoubtedly his occupation has caused. Would that be considered to be due to his occupation. Is it compensable?

Dr. F. W. Shafer: I should say that about one-half of all hernias are bilateral and they do grow gradually. A man may not have had a large external ring 2 years ago and have developed a hernia since that time. If he had been in Pennsylvania, it would be compensable, but if he lives in New Jersey it is not.

PREVENTION AND TREATMENT OF CHRONIC OTITIS MEDIA

E. LE ROY WOOD, M.D., M.Sc.

Newark, N. J.

(Read at the Annual Meeting of the Section of Ophthalmology, Otology and Rhinolaryngology of the Medical Society of New Jersey, Atlantic City, June, 14, 1929.)

The prevention of chronic otitis media is obviously the prevention and treatment of the acute infection, but there are procedures to be considered that are directed against chronicity without being the immediate treatment of the acute condition.

The patient is apparently progressing fav-

orably and there are no complaints or evidence of disease except the discharge from the ear; 4 to 6 weeks have elapsed since onset of the acute condition. Attention is now directed against the patient entering that large class of individuals suffering from chronic otitis media, with potential dangers of damage to the ear, loss of hearing, or a fatal intracranial complication. There may have been mastoid involvement during the acute period the symptoms of which, other than discharge, either were not manifest or disappeared without surgical treatment. If the discharge shows no diminution in quantity as time passes, or manifests fluctuation—now copious and now scanty—and, above all, if the deep meatus remains swollen and inflamed, then mastoid extenteration is certainly indicated, and no benefit, but rather the reverse, will accrue from postponement. It is best not to procrastinate because a considerable percentage of the cases develop into chronic otorrheas or something worse, and practically all of them may be cured and have aural function preserved by timely operation. The fact that some get well without operation, with more or less hearing, is no reason why the chance of destruction in so many should be taken; the same chance as was formerly taken with ice-bags on an inflamed appendix. Posterior drainage, at a reasonably early date, is a powerful remedy for prevention of that form of chronic suppuration which is consequent upon the acute form of the disease. No case should be allowed to become one of chronic suppuration until posterior drainage has been tried, not only in order to save life, but also in order to conserve hearing.

It is during the interim after subsidence of the acute symptoms except the discharge that the tonsils and adenoids should be removed and the hygiene of the nasopharynx improved. Success of the so-called nonoperative treatment depends very considerably on removal from the nose and throat of predisposing causes of otorrhea, the removal of adenoids and tonsils, and nasal sinus infections. The removal of diseased tonsils, even when inconspicuous, is of decided importance both from a local and constitutional standpoint. No

harm comes from it, and often the most unexpected improvement. Short of a conservative mastoid operation, the earliest possible removal of adenoids offers the best prospect of curing a suppurating ear. Adenoidectomy is recommended as an important preliminary step in all treatment whether operative or non-operative.

Continuance of otorrhea makes it necessary to divide our cases of chronic suppurative otitis media into 3 classes: non-dangerous, dangerous, and cholesteatoma.

THE NON-DANGEROUS EAR

In this group, the perforation, although it may be large, does not involve the bony margin, and usually a small rim of membrane may be seen between the perforation and the annulus tympanicus. The discharge has no odor when the canal is kept clean, and is the product solely of disease of the mucous membrane of the tympanic cavity, the eustachian tube, or both. There is no danger of intracranial complication. The radical operation is not indicated and much discredit has been cast upon that operation by surgical intervention in these cases in an effort to stop a discharge. Local cleansing can be continued, by syringing, douching, or swabbing, with or without drops, and the recently advocated treatment by zinc ionization here finds its fort. Zinc ionization is advocated and used with good results by many when they feel the infection is primarily one of the mucous membrane and that the principal nidus is still in the surface layers, but before beginning ionization an x-ray film of the mastoid should be made to exclude cavity formation.

Determination of the infecting organisms in these chronic ears seems hardly worth while, as specific treatment seems beneficial only in 2 types of infection, one of which is extremely rare and the other proportionately small. Occasionally, patients are seen in whom the infecting organisms are the fusiform bacillus or Vincent's spirochetes; and arsenic is a specific, locally applied in the form of Fowler's solution, or intravenously as arsphenamin. The other type of infection is the tuberculous ear, in which no other treatment seems

as efficacious as ultra-violet light therapy; quartz and vapor mercury lamps may be used as a source of these rays, or direct sun light reflected into the ear by means of a metal mirror.

THE DANGEROUS EAR

In this group bone necrosis exists. The perforation of the drum is marginal or in the membrana flaccida. Frequently the annulus tympanicus appears partly destroyed or "as if bitten away". Necrosis of portions of the ossicular chain or adjacent antral wall is seen in some cases. A persistent, purulent otorrhea, usually with a distinct fetid odor, is present in all of these cases, and such patients are placed in the dangerous group because eventually they tend to suffer from intracranial or labyrinthine lesions.

Cure depends upon thorough removal of the necrotic bone and careful after-treatment, the latter being almost as important as the former. One must be mentally prepared for radical surgery when an acute exacerbation supervenes, or at the first sign of intralabyrinthine or intracranial involvement. Fever, pressure sensations in the head, distinctly localized occipital headache, or nystagmus indicate immediate operation. Facial paralysis coming on during the course of a chronic middle-ear suppuration, likewise indicates immediate operation; provided no other reason for facial paralysis is present.

Even when the radical operation is performed we do not always get a dry ear. While the primary purpose is to make the ear non-dangerous, we still do like to secure dryness after the radical operation. Dr. Richards has in a most able manner listed 6 reasons for operative failure in the classical radical mastoid operation:

(1) Failure to lower the facial ridge to its absolute limit.

(2) Failure to remove the serrated fringe of bone representing the anterior margin of the facial ridge back to the descending limit of the facial nerve. This removal should be carried down to the level of the hypotympanic floor.

(3) Failure to lower the floor of the bony auditory canal down to the level of the hypotympanum. He states that unless these 3 steps are taken it is impossible to get at a mass of cancellated structure posterior to the promontory which is always diseased in suppurative otitis of the chronic type. This cancellated structure is peculiarly hard and firm and shows little tendency to throw itself off by process of caries.

(4) Failure to shave down the convexity of the anterior bony canal wall so as to increase the anteroposterior axis of the cavity and, in conjunction with No. 2, render the tympanum more accessible.

(5) Failure to remove the annulus tympanicus completely and the lip of bone overhanging the mouth of the eustachian tube.

(6) Failure to remove the attic wall.

CHOLESTEATOMA

The importance of cholesteatoma is partly due to its frequency, and some estimate an average of 1 cholesteatoma in every 3 chronic middle-ear suppurations. Cholesteatoma involves great dangers because of the accumulation of putrid, decomposing epidermic scales. The epidermization extends into small recesses, which are soon filled with exfoliated epidermic masses. The cavity gets larger by pressure on the surrounding structures. Growth takes place at the cost of its environment; bone wastes away; the labyrinthine capsule or the dural plate of the middle and posterior cranial fossas are destroyed. In moisture and warmth, the epidermic scales form an excellent breeding place; resulting in an inflamed cavity which lies side by side with the labyrinth, dura or sinus. There is great danger of the infection spreading to vital organs. Moreover, through granulation tissue formations, the conditions for drainage become still more unfavorable and the retention more imminent, so that the deleterious effect of the cholesteatoma is plainly evident.

In every chronic middle-ear suppuration with fetid secretion and epitympanic marg-

inal perforation, cholesteatoma must be suspected. Small cholesteatoma cavities with good conditions for discharge may be treated conservatively. With the help of Hartmann's attic tubes, the ear can be thoroughly cleansed, dried, and disinfected with boric acid powder in such manner that neither accumulation nor putrid decomposition will occur. In many cases this treatment will be sufficient, but where the cholesteatoma cavity is large or the opening to the tympanum narrow, the dangers mentioned above exist. Cleansing with attic tubes is to be tried, except when there are signs of a complication or acute inflammation. When this does not bring the desired result, one should resort to the radical operation.

Indications for the radical operation because of cholesteatoma:

- (1) Inflammation of cholesteatoma with threatening symptoms, i. e., pain, rise of temperature, and evidence of labyrinth, dura or sinus complications.

- (2) Failure of conservative treatment in spite of a consistent application during 4-6 weeks.

- (3) Constantly recurring suppuration after periodic stoppage by conservative treatment.

- (4) Insufficient coöperation of the patient, or the impossibility of an exact conservative treatment owing to general conditions, such as lack of ear specialists, distant places of residence, etc.

Among those who have not settled down to just 2 operations for otorrhea, the simple mastoidectomy and the radical, there seems to be a healthy growing interest in conservative or modified mastoid operations. A working policy has been devised by Dr. John Randolph Page, of the Manhattan Eye, Ear and Throat Hospital, based on a conservative attitude toward the chronically discharging ear. It is a progressive working plan that seems logical and orderly. Dr. Barkhorn has suggested it as a policy to be followed by the staff of his Ear Clinic in our Newark Eye and Ear Infirmary. It is as follows:

PLAN OF TREATMENT FOR DIFFERENT TYPES OF SUBACUTE AND CHRONIC SUPPUR- ATIVE OTITIS MEDIA

Refer those cases with adenoids and tonsils for immediate operative removal and emphasize the importance of returning afterward for regular treatment. After cleansing treatment of the ear has been fairly tried, discourage those that may be better helped by operation on the mastoid from coming back indefinitely for cleansing treatment and drops. Record on the card, before every operation in each case, the functional tests for comparison later.

In the following types of cases consider the following operations:

- (1) Where the acute signs of mastoiditis have subsided but discharge continues through a pouting or widening perforation, exenterate the mastoid to prevent deafness and chronic otorrhea.

- (2) In similar cases where there is also inflammatory atresia of canal that might later interfere with access to the drum, exenterate the mastoid, lower the posterior wall to the annulus, and construct a new meatus with closure of the posterior wound.

- (3) Where there is a varying amount of intermittent discharge through a perforation that shows no tendency to heal despite attention to the nose and throat and cleansing treatment, exenterate the mastoid and lower the posterior wall to the annulus, widening the aditus according to the condition found, and construct a new meatus.

- (4) Where there is a varying amount of drum membrane left and sufficient hearing to warrant an attempt to preserve or improve it, exenterate the mastoid and lower the posterior wall to the annulus, with further widening of the aditus and removal of the external attic wall and, depending on the degree of involvement of attic and tympanum, removal of the epitympanic bridge. Even in cases where there has been great destruction of the drum membrane and marked changes in the tympanum, provided danger to the patient can be eliminated, try the conservative operation and

allow time for regeneration of the drum membrane or formation of cicatricial membrane, to wall off the tube and effect a dry tympanum.

If, after fair trial, otorrhea still persists, due obviously from its salivary and mucoid character to tubal communication with the nasopharynx, the Yankauer operation for closure of the tube may be tried.

(5) Finally, cases that have been unsuccessfully treated by such conservative methods, and those that are found at operation to warrant it, should have the radical operation with complete exenteration of the mastoid and special widening of the tympanum to facilitate after-treatment and keep the tubal region well in view.

PREVENTION AND TREATMENT OF SO-CALLED CHRONIC CATARRHAL OTITIS MEDIA

HENRY C. BARKHORN, M.D., F.A.C.S.,
Newark, New Jersey

(Read at the Annual Meeting of the Section of Ophthalmology, Otology and Rhinology of the Medical Society of New Jersey, at Atlantic City, June 14, 1929.)

The term "Chronic Catarrh of the Middle Ear" might better be changed to progressive deafness, because under this term are grouped a large variety of pathologic conditions which represent a number of different lesions, some of them bacterial in origin, others from focal infections of constitutional origin, and by far the lesser number from interference with ventilation of the eustachian tube and middle ear. Pathologically, they include recurrent subacute and chronic hyperplastic inflammation of the mucosa of the entire middle ear cleft, adhesions of the middle ear, and atrophic inflammation of the middle ear. Clinically, there is deafness and tinnitus becoming progressively worse, most often in attacks following acute reinfection. This clinical picture makes it particularly difficult to separate as an entity otosclerosis, in which there is no

change in the mucous membrane but in which the foot plate of the stapes becomes fixed in the oval window by bony ankylosis. So, we can only discuss the broad group tendencies and, satisfying ourselves into which general classification the case under consideration falls, make a sincere attempt to establish a régime for the prevention or retardation of further loss of hearing. Realizing the inevitableness of the poor prognosis in many cases, we must make a definite tactful effort to prepare the patient to continue his economic and social usefulness without, by our tactics, driving him to the quack or, on the other hand, ourselves doing needless operations and constant technical manipulations.

If we divide all deafness into conduction, also called transmission, deafness, and reception, also called nerve deafness, and then try to visualize otosclerosis as an accommodation deafness, mentally comparing the foot plate of the stapes to the iris of the eye, we will easily get a clear conception of the problem when we have the patient before us.

The conventional ear tests can be made very simple if we just remember a few basic facts:

The Weber test is to determine whether a vibrating fork is heard better on one side than on the other, or equally well on both sides. In normal hearing the patient does not lateralize the sound; in case of unilateral disease of the conducting apparatus, the sound is referred to the diseased side; in bilateral disease of the conducting apparatus, the sound is referred to the worse hearing ear; in unilateral disease of the perceiving apparatus, the sound is referred to the normal hearing ear, and in bilateral disease of the perceiving apparatus, toward the better hearing ear. In disease of the conducting apparatus on one side and perceiving apparatus on the other, it will be referred to the side with the conducting apparatus disease.

Schwabach's test is to determine whether the patient's bone conduction is better or worse than normal.

The Rinne test is designated as *positive* when air conduction is better than bone con-

duction; *negative* when air conduction is less than bone conduction.

The vibrating fork held on the root of the zygoma is heard normally as loud and as long as it is when placed on the mastoid. When it is held on the tragus, it is normally heard louder and longer than when it is on the zygoma root. When the canal or the tympanic cavity is the site of a simple obstructive lesion, the same relation continues to exist.

Nerve deafness also shows this same relation. When this test is done on patients with fixation of the stapes foot plate, this relation is reversed. The fork on the zygoma root is heard long after it ceases to be heard on the tragus. While it is heard on the tragus it is heard much louder on the zygoma root. This differentiation seems consistent with accepted conceptions of the physics of the hearing apparatus. With the fork on the bone, the vibrations are transmitted directly by bone in all directions. When the perilymph of the scala is encountered by the vibrations the latter are transmitted normally in such manner as to affect interaction between the hairs of Corti and the tectorial membrane; with round and oval windows both closed this would be impossible. In fixation of the stapes, sound waves conducted directly by bone have no difficulty in stimulating Corti's cells because of the vent at the round window; but sound waves from the tragus produce almost no stimulation of Corti cells because, while they might have access through the round window, the same membrane must act as a vent for waves passing through it to the perilymph—the oval window being tightly closed by the fixed stapes. This results in the marked inferiority of the tragus route as compared with the bone route for vibrations in this case.

SUMMARY OF TESTS

Diminished bone conduction = reception deafness.

Air conduction greater than bone conduction = +Rinné.

Bone conduction greater than air conduction = -Rinné.

+Rinné with normal hearing = normal ear.

+Rinné with bad hearing = reception deafness.

-Rinné = transmission deafness.

Tuning fork on glabella, chin, or vertex, heard better or longer in less deaf ear = Weber to good side.

Weber to bad side = transmission deafness.

Weber to good side = reception deafness.

Tuning fork heard longer on zygoma than tragus = stapes fixation.

Bezold's triad, which is diagnostic of true otosclerosis: (a) disproportionate loss of hearing for low tones; (b) prolonged bone conduction which can also be determined as distant bone conduction; (c) -Rinné.

When a patient comes into the office we rapidly test bone conduction with the watch, hearing distance with the watch, Rinné, Weber, stapes fixation, and distant bone conduction, in the following manner. The watch is placed in the center of the forehead, along the outer edge of the squamous portion of the temporal bone at 3 points 1 in. apart and over the mastoid antrum and recorded as follows:

1	2	3	4	5	Normal bone conduction = no nerve deafness.
0	0	0	4	5	Diminished bone conduction = some nerve deafness.
0	0	0	0	0	Absent bone conduction = advanced nerve deafness.

Then the hearing is tested with a watch that should be heard 30 to 36 in. away, and recorded with a number indicating hearing in inches.

The Rinné test is made by striking the fork C1 on the knee and holding it first at the canal and then on the mastoid over the antrum, asking which is heard best. If it is heard best at the auricle the Rinné is positive, if over the mastoid the Rinné is negative. Again striking the fork it is held where heard less well and the patient is told to say "now" when he no longer hears it, then it is at once placed at the other place and we silently and slowly count, recording the findings as +12 or -12 as the case may be. This determines whether conduction or perception deafness is present. Now, the Weber test is used as a

check. Again striking the C1 fork it is placed over the forehead and the patient is asked in which ear he hears it longer or better, and this is recorded R.L. or L.R.

If bone conduction be longer than air conduction the fork is pressed over the zygoma root and when it is no longer heard it is pressed upon the tragus, and if still heard on the tragus after bone conduction ceases there is no stapes fixation; if not heard there is stapes fixation. This test replaces the Gellé method, which is more cumbersome and more difficult. Finally, the vibrating fork is pressed upon the patella of each knee and the patient is asked whether he hears the sound or merely feels the vibrations. If he hears the sound he has prolonged or distant bone conduction and has either otosclerosis or osteosclerosis in some part of the cochlea other than fixation of the stapes.

These findings, if carefully done and checked, are never wrong. If they do not seem to harmonize with our preconceived ideas of the case it is because there is a mixed deafness, such as otosclerosis or nerve deafness in the presence of a chronic middle ear suppuration, and we must readjust our point of view to agree with the functional findings and not try to make them agree with the objective findings. It is for this reason we plan to do the tests before making inspection. There are many cases of chronic purulent otitis media which have a concomitant nerve deafness or an otosclerosis. When we see a perforation we are apt to stop then and there and not make any functional examination. The drum is apt to be pearly white in the atrophic type of deafness, slate colored or dull red in the hypertrophic, and cotton colored in the adhesive type, with the pink promontory showing in otosclerosis. When the drum in a deafened ear is seen easily and all the landmarks stand out the affection is apt to be of the atrophic type. When you see an otologist fuss around, having difficulty in seeing the landmarks and seem uncertain of his finding, the lesion is apt to be of the hypertrophic type.

Having reached our diagnosis, and this all takes place in a very few moments, we are

prepared to logically and systematically proceed to prevention and treatment.

Our first premise must be: If a patient suffering from chronic progressive deafness has normal tympanic membranes and patent eustachian tubes, and if functional examination elicits distant bone conduction, disproportionate loss of low tones with stapes fixation and a negative Rinne, the case is one of otosclerosis and we are helpless. If the patient is a woman we must advise against marriage and childbearing unless she is prepared to accept rapid increase of her disability.

We can, however, emphasize that deafness is not so dreadful a thing and tell her that when hardness of hearing has reached such a degree that it interferes with the relation of the individual to society, lip reading must be taken up. We must insist that lip reading is in its place as important as glasses are in their place, and we, as otologists, should do all we can to encourage the formation of local branches of the League for the Hard of Hearing. The League, by its classes in lip reading, by its placing mechanical aids to hearing at the disposal of its members for trial, by its social phases, by its enthusiasm, and by its encouragement of the advanced deafened has done more for these unfortunates than anything except the tonsil and adenoid operations.

For the true catarrhal processes we must realize that sepsis is the underlying factor and that the main hope of preventing chronic middle ear deafness lies in the early recognition and treatment of catarrhal and septic changes in the upper respiratory tract. We feel that after the tonsils and adenoids are eliminated the sinuses should be carefully explored, all doubtful antrums should be washed and x-rayed, the orifices of the sphenoid should be repeatedly investigated with the nasopharyngoscope, and the sphenoids should be opened and drained much more frequently than they are, particularly when there is much tinnitus and dizziness present. Submucous resection is helpful only because of the improvement it brings about in ventilation and drainage of the sinuses, and not because of any change in

atmospheric pressure it may cause about the eustachian tube orifices.

We feel that maintenance of the pathway of the eustachian tubes is of secondary importance but short courses of treatment are helpful toward the prevention of more rapid progress. We are very careful to use the same length catheters in all our treatments and prefer the Yankauer No. 2. In this way we are able to record the length of the catheter remaining beyond the end of the nose when once we have blown air through the tube, whereby future catheterizations are done with a minimum of trauma and manipulation, much to the satisfaction of the patient, and with a minimum of loss of time for the doctor. We use Yankauer applicators dipped in neosilvol both as bougies and for topical application. We have recently been inflating with a few drops of chloroform as a vapor, and find that it acts quickly without any distress or pain; there is an immediate injection of the vessels along the manubrium; and the hearing is temporarily markedly improved, sometimes for as long as a week. This is perhaps because the ligaments of the ossicles become more pliable because of the increased blood supply.

The causes of nerve deafness are so numerous, and treatment of so little avail, that I will merely mention them and urge that an effort be made in all cases to find into which group the patient belongs so as to refer him to the proper physician for treatment of the underlying cause.

NERVE DEAFNESS; CAUSES OF

(1) Inflammation of labyrinth: (a) meningitis, serous, syphilitic; (b) epidemic meningitis; (c) following prolonged suppuration of middle ear; (d) following prolonged catarrhal deafness and osteosclerosis.

(2) Anemia of labyrinth: (a) severe hemorrhage, childbirth, pernicious anemia, osteomyelitis, chlorosis. (b) Impaired circulation such as: Aneurism of internal auditory artery; neoplasms growing into the internal auditory canal, either from the dura or the brain; embolus of the internal auditory ar-

tery; constrictions of the artery due to atheromatous deposits.

(3) Hemorrhage into labyrinth: (a) Typhoid, variola, scarlet, diphtheria, mumps, nephritis, diabetes, leukemia, pernicious anemia, sudden cessation of menstruation, caisson worker's disease, chronic congestion of cardiac disease, hypertension. (b) Meniere's disease? (c) Hyperemia due to tumors at the base of the brain.

(4) Traumatic lesions of labyrinth: (a) Fractures; (b) concussion; (c) boiler makers deafness.

(5) Paralysis due to drugs; quinin, salicylic acid, arsenic, lead, alcohol, tobacco.

(6) Rheumatic paralysis (rare).

(7) Syphilis of the labyrinth, auditory nerve, or of the meninges and brain.

(8) Tuberculosis.

(9) Marasmus, scurvy.

(10) Colloid degeneration of auditory nerve found in some forms of insanity.

(11) Rarely in tabes.

(12) Diseases of the brain such as: hemorrhages, emboli, softening of brain, encephalitis, chronic sclerosis, acute and chronic hydrocephalus, gumma, tuberculosis, new growths.

There is one cause of unilateral nerve deafness for which all otologists should be watchful, because such cases are almost always treated by us for long periods before we realize their importance. I refer to cerebellopontile angle tumors. The symptoms of this, one of the most frequent of intracranial tumors, are in the order of their usual appearance:

(1) Tinnitus; (2) labyrinthine vertigo; (3) deafness; (4) numbness of side of face and emotional facial paralysis; (5) periods of diplopia and lowered vision; (6) occipitofrontal pain; (7) stiffness of neck and tenderness; (8) unsteadiness of gait and ataxia of movements; (9) difficulty in swallowing and awkwardness of articulation; (10) choked disc; (11) loss of corneal reflex, lowering of taste, nystagmus; (12) no response both canals on the side of the lesion, and no response head forward opposite for the cold caloric.

Otologists are prone to treat the tinnitus,

vertigo, and deafness for a long time before awakening to the fact that the problem is more complex than we thought it to be.

In conclusion, I would emphasize the following: Diagnosis is of first importance in the prevention and treatment of all deafness and this diagnosis while usually easy often carries us far afield into neurology and general medicine.

The removal of infection, particularly of the teeth, tonsils, and sinuses, accompanied by short periods of intensive local treatment following all acute infections is quite helpful.

The ultimate hope of all these patients lies in scientific lip reading and not in the subconscious lip reading that they all acquire.

We should do everything we can to foster the League for the Hard of Hearing because it is through such associations that the happiness and usefulness of the markedly deafened can be developed.

DISCUSSION ON OTITIS MEDIA

Dr. James A. Fisher (Asbury Park): These 2 masterly papers leave little to be said, either in regard to diagnosis or interpretation of findings and the treatment as far as we know at the present day.

Dr. Wood's paper brought to my mind a case that I saw this spring. Perhaps you people who do not live along the sea coast are not confronted with the so-called "salt water ear", or "bathing ear". This man, about 36 years of age, had a salt water ear during the summer. It apparently had quieted down without any treatment. Along in the spring, he went to another physician with pain in this ear and was treated for what appeared to be an external otitis. He finally came to my office. I found a dry ear, no perforation in the membrane, landmarks not very distinct because there was diffuse swelling of all of the skin and the membrana tympani, and the canal was greatly reduced in size. The swelling extended out onto the concha. I saw him twice and then decided that I must be mistaken, that it was not an external otitis. His hearing, of course, was greatly reduced. We x-rayed and secured as pretty a picture of cavity formation of the lower two-thirds of that mastoid as you ever saw in an x-ray picture. At operation we found a complete disintegration of practically the lower two-thirds of the mastoid. This condition had been going on since summer without drainage through the external canal and without pain. Probably, it was getting just enough drainage back through the eustachian tube to keep him from trouble until he finally got a sufficient pathologic swelling to wall that off and then the diffuse external inflammation brought him to the office.

That is one type which has not been mentioned—where we have a dry ear and yet extremely dangerous pathology within the mastoid. That

doesn't, however, come under those cases that Dr. Wood spoke of. I think there is a lot to be said for zinc ionization treatment, but it must be done absolutely right or you are not going to succeed. You have got to have an ear absolutely suitable for a zinc ionization treatment, practically entirely free of granulation tissue, cleansed entirely by irrigation into the attic region, so that your rinsing solution can absolutely penetrate every recess in the epitympanic spaces and get behind the drum in its entirety, and then we must be careful not to shock the patient and produce an extreme dizziness by coming up too fast with the current and suddenly cutting it off when we have finished, instead of slowly reducing the current. I haven't used it a great deal, but where I have used it and have had cases that have been adapted to it, I think it does hold something for us.

I don't know how many of you use gentle suction in these chronic suppurative otitis media cases, but I like a little gentle suction to cleanse the ear. It brings out the hidden débris. I remember particularly the case of a school teacher who had a small high perforation that would block up, and when she felt this pressure she would return to the office. I wasn't satisfied, but thought that there probably was a little cholesteatomatous formation up in the epitympanic space, so I made a long incision, extending clear up through to the attic region and then by suction, I brought down a fairly large sized cholesteatoma. This apparently was well confined, because with just a few treatments, it entirely cleared up.

Now, as to Dr. Barkhorn's paper, I told him before the session that I knew there was not going to be anything left for me to say when he finished, and I doubt if many of us will have much to add. I am certainly very grateful to him for his outline of his clinic examination. I would be glad to see that in print and master it myself, and probably adopt it.

I was in hopes he was going to startle us with something that was really going to do something for these patients, for it seems to me there is not anything in our practice that is so discouraging as these chronic otitis media cases. I feel as if I would like to fly right away from them at times, because it is certainly discouraging not to be able to offer them more.

When he mentioned the eustachian bougies, it brought to mind a case that Dr. Dowling of Albany reported some time ago, an accident that happened. I don't want to be a calamity howler or anything of that kind, but I just want to caution you on the amount of force to use in passing eustachian bougies. He had a case in which there was dehiscence in the bone and the eustachian bougie passed into the carotid and he lost the patient. This is a little word of warning about too much force.

Dr. Dikran M. Yazujian (Trenton): In passing a catheter, I have found, and I have employed it for years, that 4% cocain saves trouble. I apply it before passing the catheter and patients tell me they are not hurt at all.

Catarrhal deafness with beginning nerve involvement, I have found to be benefited by diathermy. It is of unique service. Perhaps this encourages Dr. Fisher. I apply the diathermy through an electrode that I have devised. I have taken the head piece of an old-fashioned radio ear-phone and put a wooden disc with a small perforation in the center in each ear piece. Through each ear piece (if it is a bilateral case) I pass an

applicator with cotton wrapped around the end and dipped in water. I send in the applicators almost as far as the tympanic membranes. There is such a device by Dr. Pollard, but I have 2 objections to it. One is that the 2 posts of the diathermy apparatus are connected to the 2 ears, which makes the field of action fall in the center of the head instead of in the ears; and secondly that the electrodes do not go deep enough into the ears. We want to apply the diathermy to the ears themselves and as near as possible to the tympanic membranes and ossicles. In my method, the patient is seated on a pad which is charged by one of the diathermy posts. The cord from the other post is connected in a "T" shape to the middle of a short cord 2 ends of which hold the 2 clips that go to the 2 ear applicators. In this way, the current from the *one* post goes to both ears and the diathermy acts on the ears themselves. Immediately after applying the diathermy, which I give for 15 minutes, I use massage with a rubber cup masseur that takes in the whole external ear.

I find the zinc ionization treatment so exacting that I have not the temerity to try it. As Dr. Fisher said it has got to be done exactly right, otherwise the patient will have a lot of pain. However, beginning several years before the zinc ionization came out, I have been using zinc drops; 3-5 gr. zinc sulphate in 1 oz. peroxide; the latter for its penetrating quality, to carry the zinc deep into the tissues. Or, 3 gr. zinc sulphate dissolved in distilled water and alcohol to make 1 oz. These drops are used 3 or 4 times a day, and this treatment has given me very satisfactory results in these chronic discharging ears. I agree with Dr. Fisher that suction is very useful. I apply it with a rubber cup to the whole temporal area including the ear. In this way I get, besides the suction effect, also hyperemia which I think is of added benefit.

Dr. Henry C. Barkhorn (Newark): I would like to say a few words on Dr. Wood's paper. Of course, I would emphasize prevention in an ear that is not doing well (I emphasize "not doing well") you have to watch out for chronic otorrhea for 2 weeks. A mastoid progresses by continuity on a 2 weeks' story and in 2 weeks you are not apt to have any complications. After that, you don't know how soon the inner table, either over the sinus or dura, may melt away in spite of its separate blood supply.

In taking out tonsils and adenoids because of otorrhea, you must be very careful to warn patients they may have a mastoid in spite of your tonsil and adenoid operation; otherwise they feel you have wished something on them, that they just had a running ear and you did the tonsil and adenoid operation and now they have a mastoid.

Fowler's solution, of course, acts because arsenic is a spirocheticide and Fowler's is just as good as salvarsan in killing the spirochetes of Vincent.

To summarize Richard's six points, all you would have to say is that you must be absolutely certain to convert the barrel-shaped cavity of the ordinary ear into an absolute funnel. If you do that, you get a good radical. If you leave a constriction anywhere along the line, you get a bad radical which will have continuation of discharge.

As to Page's points, I would emphasize that again you must warn patients that they may need a radical operation in spite of the conservative

one, but you may also tell them that it is very easy to convert a conservative radical into a real radical and that the second procedure would perhaps be no more complicated than is a delayed skin graft that is so often done in radical surgery.

Dr. James A. Fisher (Asbury Park): To bring up the point of diathermy in these cases, I have used the Pollard ear applicator. It is true it is the wrong conception of the physics of the diathermy current, which gives its heat when 2 electrodes are of equal size at a point midway between the terminals. If we are to get our heat in the middle ear we must fit our patient with a small electrode in the ear and a larger electrode opposite behind the ear because our heat approaches the smaller from the larger electrode. When we use the same identical size in both ears, we get the heat midway.

Chairman Emerson: Dr. Wood spoke of the need of operating on these subacute running ears. Last Monday and Tuesday I operated on 2 mastoids in succession, both neglected suppurative otitis, one of them running about 7 weeks, and the other about 4. Their symptoms were practically identical and neither patient was very sick. They had got past the point of fever and pain. Neither of them was tender. X-rays showed disease in both. They were both patients I had seen first and had gone elsewhere, being out of town, living elsewhere, and there was an interval of 2 weeks or so in which I had not seen them. Then they came back and I expressed an opinion they would probably come to mastoid operation. I tried to dry them up by suction and daily treatment. There was no tenderness and there was general well being, but extensive profuse yellow discharge from both ears.

The first case, operated on Monday, showed complete destruction of the mastoid with an exposure of the middle fossa and of the sinus, as large as my thumb. The other case with exactly the same symptoms showed an antrum about the size of a peanut with 2 or 3 drops of pus. Yet the symptoms in both cases were exactly the same. The operations were done with the idea that if they recovered without operation, they would have impaired hearing. That is one thing that it is sometimes difficult to make these patients understand, that a mastoid operation in a subacute case may not be a life-saving proposition, but it is a hearing-saving proposition.

In catheterization, I have much the same scheme as Dr. Barkhorn, only I have it in a little different way. I have about a dozen catheters on my shelf, and I write on the patient's chart just which catheter to use. If my patient's nose is roomy enough to get through and I find I get the best inflation with the catheter that I designate my *big* catheter, I say so. If my patient's nose is wide enough so I can get through without hurting him, I inflate him better that way, I write it on the card.

I write other notes. For instance, patients refuse to have a submucous done and have marked deviations; I write "low down, forward; upside down to get in, hug the floor and turn it around", because with a great many patients, coming at long intervals, you can't remember, and oftentimes the first time you catheterize a patient you have a great deal of difficulty in finding the opening and getting it in; after doing that, if you

make some notes to that effect on your card, you will save them a great deal of trouble.

Unless the patient absolutely requests me not to use it, I always use cocain in inflations. I have a few patients who have perhaps a mental prejudice against cocain and they don't want to have any used.

A year ago I ran across an article in the Eye, Ear, Nose and Throat Journal, mentioning a solution for chronic suppurative otitis with granulation, named Calot's solution. I have used this solution with very remarkable results. For instance, I have had some radicals that have been wet for years, but the use of this has dried it up completely. The prescription I use is as follows: *Modified Calot's Solution*—Guaiacol, 1/200 gr.; Creosote, 20 min.; Iodoform, 30 gr.; Ether, 4 gm.; Oleum Olivæ, to make 1 oz.

The guaiacol acts on the granulations and the iodoform and creosote are antiseptic; the ether dries them up and the olive oil maintains the permanency of the solution in contact with the mucous membrane over a great many hours. When I first saw this solution, it looked like a shotgun prescription, but this man spoke of it so highly that I had some made up and tried it. Now I think I have at least 25-30 patients using it and very nearly all of them are using it with the greatest of satisfaction. We all have such a large number of these chronic suppurative otitis media patients who do not care to have any operation done.

Voice: How much do you put in?

Chairman Emerson: Three or 4 drops at night. I have them wipe out the ear well—I don't have them wash it out, I don't have them put water in, but wipe it out and put cotton on a tooth pick and instil the solution.

Dr. Earl LeRoy Wood (Newark): I want to thank the gentlemen for their courteous treatment. There was one point that occurred to me, in Dr. Barkhorn's paper, when he was speaking about the lip reading and the electric aids; there are aids to the deaf that we should constantly bear in mind. Lip reading should be started before they are extremely deaf, immediately when we make a diagnosis of progressive deafness. This is a bit difficult because patients think when they have to use electric hearing aids or start lip reading, there is no need for further treatment by the otologist, and frequently the doctor loses the patient. I think we ought to be honest with patients and tell them the truth, that the prospects are very much against our performing any miracles with their hearing. If they start studying lip reading early while they still have some hearing, it is going to be all the more easy.

Again, just as soon as they do not hear readily, they should use a hearing aid, because the hearing aid prevents the disuse atrophy of the nerve; it gives them something to hear with, and it helps them while they are studying lip reading. Of course, the lip reading is the most ideal of all, and during the process and as soon as they cannot hear the spoken voice easily, the electric hearing aid prevents the nerve deafness due to disuse.

ACUTE MASTOIDITIS AT 8 WEEKS OF AGE

HARRY B. SILVER, M.D.,

Newark, N. J.

(Read at the Annual Meeting of the Pediatric Section Medical Society of New Jersey, Atlantic City, June 13, 1929.)

Within the last few years there has been an intense interest in otologic infections of early infancy due, in a very great degree, to the work of Marriott on mastoiditis in young athreptic infants. There has been a very general feeling, however, that the association of vomiting and diarrhea, on which so much emphasis has been placed, was possibly not an essential part of the picture. Also, in some quarters it was felt that even the existence of a definite clinical and pathologic mastoiditis at so early an age was open to question. About a year ago I reported (Laryngoscope, Jan. 1928) a case of mastoiditis in a 10 weeks old infant, as a postmortem finding, without any of the usual symptoms. I now wish to report a case of mastoiditis operated on at 8 weeks of age and undoubtedly of even earlier origin. It was the work of Marriott that gave us courage to make the diagnosis and submit the child to operation. The clinical history in this case is typical of an acute mastoiditis and the operative findings are very definite. The slight variations from the course of the disease in older children are only those dependent on the difficulties of accurate observation of the ear at such an age.

It is worthy of note that the severe and persistent vomiting in this case was of an origin completely and demonstrably separated from the otologic complication, and occurrence and subsidence of this complication had absolutely no effect on the underlying condition. At no time was there any tendency to diarrhea and there were no symptoms referable to the mastoid except the temperature and the local findings. The anatomic possibilities of a mastoiditis in the very young infant, I believe, are now generally fairly well conceded and although the antrum is small, it is sufficiently

differentiated to give rise to the classical picture.

Case History. D. O., male white child, born December 12, 1928; first baby; no miscarriages; normal pregnancy, full term, normal delivery, no instrumentation, birth weight 8 lb. Left hospital on the tenth day, weight 7 lb. 13 oz. Breast fed for 2 weeks, then milk, water and sugar mixture. Brought to the office at age of 6 weeks for persistent vomiting and loss of weight. Had vomited some since birth but this had markedly increased within the past 2 weeks. Stools dry and small but contain fecal matter; 1-2 stools a day. Somewhat dehydrated. Marked generalized hypertonia. Fontanelle normal. No abdominal tumor nor peristaltic wave. Weight 6 lb. 10 oz. Put on lactic acid, whole milk and Karo syrup; about 85 calories to the pound. Returned to the office in 4 days weighing 6 lb. 13 oz. but vomiting seemed worse and at times was projectile. On account of marked hypertonia and absence of a peristaltic wave or an abdominal tumor, a diagnosis of pylorospasm was made, and the child was admitted to the hospital. Lactic acid milk thickened with cereal was continued, with the addition of subcutaneous glucose solution and atropin sulphate solution 1:1000 up to 3 drops before each feeding. At this dosage definite signs of atropin poisoning appeared, and the atropin was then stopped. On 3 other occasions administration of atropin was followed by a sharp rise in temperature which dropped when the drug was discontinued.

Ten days after admission an irregular temperature began. Examination revealed marked redness in both ear drums, more marked on the right side, and a bilateral myringotomy was done. The left ear gave a dry tap but from the right a small amount of pus escaped. Irrigation of the right ear for 24 hours gave some shreds but after that the return flow was clear. Four days after the myringotomy, as the temperature was a definitely septic type, varying daily from almost normal to 105°, we consulted with Dr. Barkhorn. The drums and canal were apparently normal but in view of the pus originally obtained on myringotomy,

and the lack of any other cause for fever, a bilateral mastoidectomy was decided upon. The child was operated on the following day by Dr. Barkhorn and the findings were as follows:

Under local anesthesia the right mastoid tip was opened and immediately under the cortex free greenish pus was found. The mucous membrane of the antrum and a greater part of the bony wall had undergone necrosis. The process extended upward and forward involving the whole of the mastoid process and the underlying bone. The left mastoid was normal except for a gelatinous fluid and a swollen mucous membrane. Cultures: Right ear, staphylococcus, pneumococcus, and a Gram-negative bacillus resembling proteus; left ear, scanty growth of Gram-positive cocci, very large, probably not pathogenic.

During all this time the child continued vomiting very severely and was only with difficulty holding its weight. It was expected that after operation the vomiting would cease. However, after a stormy convalescence the mastoid wounds healed nicely but the vomiting persisted and even became worse. After a further trial of thickened cereals and atropin (again discontinued on account of toxic symptoms) the child did poorly but the extreme hypertonicity disappeared. When relaxation occurred it was possible to make a satisfactory abdominal examination and a definite pyloric tumor was felt. On March 26 (38 days after mastoidectomy) Dr. H. B. Epstein did a modified Rammstedt operation, vomiting ceased promptly, and the baby went on to complete recovery and hospital discharge 12 weeks after admission.

We are here able to present a case of proved mastoiditis at 8 weeks of age, which was not a terminal manifestation, with operation and recovery. The fact that although it occurred along with a congenital hypertrophic pyloric stenosis it apparently in no way affected the course of this disease, is of interest. We also wish to note the repeated attacks of atropin fever, with prompt subsidence on withdrawal of the drug.

DISCUSSION

Dr. Henry C. Barkhorn, (Newark): I have always felt that Marriott was an enthusiast and, of course, his work has never been checked up by a good bacteriologist. It is a well known fact that the middle ear and antrum in infancy have in them a substance that is analogous to Wharton's jelly. When Dr. Silver asked me to operate I was much surprised. However, there was nothing to the mastoid operation and there was very definite pus in the mastoid antrum and in the entire mastoid bone at that time. It is astonishing with what rapidity it must have developed. I think that this is an exceedingly interesting case because of the bilateral condition, a purulent mastoiditis on one side, Wharton's jelly on the other, and proved bacteriology on the diseased side. I felt afterward that Dr. Silver was to be congratulated for his persistence. He stuck to the mastoid and to the Rammstedt operation.

Dr. Joseph H. Marcus (Atlantic City): Dr. Silver is certainly deserving of high praise for adhering to the courage of his convictions in this intensely interesting case. I have encountered a similar otitic condition in an infant, 6 weeks of age, whose symptoms warranted operative procedure upon the mastoid. The patient completely recovered and the only aftermath was a moderate internal strabismus of one eye. Dr. Silver's observation regarding the sudden rise in temperature caused by atropin administered orally in cases of pyloric stenosis and pylorospasm has also been noted by others. I distinctly recall a sudden rise of temperature to 106° in an infant who had been receiving 1/1000 gr. atropin 6 times daily, the rise occurring on the fourth day.

Dr. E. G. Hummel (Camden): This case is extremely interesting from the fact that the infant was suffering not only from mastoiditis at such an early age but from another serious condition—pyloric stenosis—and recovered from both. This brings to my mind a child seen about 3 years ago, 4 months of age, terribly emaciated, dehydrated, and seemingly on the verge of collapse, suffering with pyloric stenosis. There was quite a discussion as to the advisability of operation. Some of the men following in to see the operation remarked it seemed more like an autopsy than an operation. After a Rammstedt operation, the baby recovered and is now a perfectly wonderful child. I cite this to show the wonderful comeback many of these young infants have, if placed under proper conditions.

Dr. F. C. Johnson (New Brunswick): I would like to ask Dr. Barkhorn when he would have urged Dr. Silver to have this baby operated upon? I think the pediatricians and otologists are always at odds about this. The otologist may be pushing the operation if he is not very busy, or the pediatrician may be pushing the operation himself. I would like to know when these children should be operated upon?

Dr. H. S. Barkhorn (Newark): Of course, the mastoid operation is usually a clear cut decision, but in this case the drum and canal had returned to practically normal condition. There was no swelling behind the ear and no edema.

Question: What would have happened if you had not done anything?

Dr. Barkhorn: I think the condition would have gone on until there was a classical mastoiditis, and

then we would have operated. This baby did not present the classical picture of Marriott's syndrome; was not toxic and did not have a diarrhea.

Dr. Harry B. Silver (Newark): As far as I have been able to find this is the youngest reported case of acute mastoiditis.

FURTHER COMMENTS ON THE ATTACKS AGAINST SALT-FREE DIET

FREDERICK M. ALLEN, M.D.,

Morristown, N. J.

I feel that the Journal of the American Medical Association not only strives to be accurate, but also in general has been friendly toward myself and my work; the only exception is that somebody connected with the Journal appears eager to jubilate editorially on the overthrow of the salt-free régime whenever some small paper is published against this treatment of hypertension, as happened formerly at the time of O'Hare's publication and recently with reference to the paper by Berger and Fineberg. Complete silence is maintained concerning the answers to the opponents mentioned, including my refutation of O'Hare and the editorial of that time (Boston Med. & Surg. Journ., 189; 810. Nov. 22, 1923). A number of friends have urged me to reply to this recent editorial. My own inclination has been to ignore it, and to rest content with the correctness of past statements and the assurance of future demonstration of the truth. But inasmuch as hypertension (including the large number of cases now wrongly classified under a secondary manifestation, namely myocardial degeneration) is by far the leading cause of death in the civilized world, much harm may be done by such misinformation disseminated by such a widely read Journal. This fact justifies a reply to the attack, after which I hope to maintain silence except when I have new experiments to present.

A brief preliminary remark will be serviceable if it can save future time and space by ending the fashion of quibbling over the term "salt-free". Language exists to convey

thought, and psychologists know that a degree of looseness of expression, creating no actual misunderstanding, is not only permissible but indispensable. If we could not speak of the white race, of hearing an automobile, of sterilizing the skin, of analyses for blood sugar and creatinin, and of sugar-free urine, and use similar inaccuracies in nearly every sentence we utter, nobody could get through a day's work. It is only the artist who can stop to define the precise shade of the complexion, only the physicist or physiologist who can devote several pages to our perception of the approach of a motor car; and likewise the above scientific expressions and a thousand like them are both acceptable and necessary for ordinary use, and discourses on the precise nature of the substance or reactions and on the traces of sugar-like material in all urine, likewise of the small amounts of mineral matter in nearly all foodstuffs, belong only to special chemical researches on these points. A salt-free diet for practical clinical purposes has been defined as one in which sodium chloride is reduced to the smallest amount that is clinically feasible. Nobody pretends to have been confused by the expression, and the habit of pausing to point out that the diet it not chemically salt-free appears as a petty pedantry which is contrary to usual habits of speech. On the other hand, such terms as "very low salt diet" are cumbersome, and all variants of the expression "low salt" are notorious for the multitude of sins they cover. Physicians in large numbers have thus been misled, while to tell any patient—"your diet must be very low in salt"—is to invite gross mistakes. The term "salt-free" is the only one which impresses the necessity of making the diet as rigorously salt-free as possible. Writers who have been too accurate to accept this expression are the ones who have been gravely inaccurate in the more important phases of their work.

The paper of Berger and Fineberg (Archives Int. Med., 44:531-542, 1929) is a summary of observations on a small series of 11 hypertension cases and 2 cases of other character. Rebuttal must take the form of a detailed analysis, which is made without the slightest

personal animosity, but which nevertheless seeks to reveal the scientific value of this report and also the critical judgment of the editorial writer (Jour. A. M. A., Nov. 16, 1929, p. 1561).

(1) Berger and Fineberg say (p.533): "We have found that symptoms of salt privation prevented prolonged administration of diets containing less than 1 gm. of sodium chloride per day." There is no mention of analyses of the foodstuffs, and we may assume that they reckoned the salt intake, as we ourselves do, from the chloride output in the urine. Inasmuch as the treatment to be tried consists strictly and solely in the prolonged administration of diets containing less than 1 gm. of sodium chloride thus reckoned, and since these authors at the outset confessed their inability to carry out this procedure, why should we not dismiss their work immediately, and why does the editorial writer regard their decision as authoritative on a method which they could not carry out?

(2) These authors continue: "Also, we must not omit the fact that patients usually find diets with a low salt content rather unpalatable and object to keeping up this régime for a long period; after a while they tend to begin to 'cheat' on the diet." The patients of Drs. Berger and Fineberg not only *tended* to cheat but they evidently *did* cheat. As mentioned above, the paper is almost entirely a summary. Only 2 more detailed records pertaining to hypertension (both from the same patient) are given, in the form of graphic charts. One of these (chart 1) shows elevations of chloride output in the midst of the "salt-poor" period which appear unexplainable except by dietary error. It is fair to assume that authors do not select their poorest records for publication, and this illustration and the partial confession quoted therefore appear significant of possible worse conditions in others. Users of the salt-free method know that results are unobtainable when diets are unreliable.

(3) A further fact is that the statements of these authors in (1) and (2) are untrue. It is not true that prolonged administration of a diet reducing the urinary NaCl below

0.5 gm. daily is ordinarily prevented by salt privation symptoms. On the contrary, such symptoms occur only rarely and are very quickly and easily obviated when they arise. Also, while not pretending that salt-free diets, even when skillfully prepared are as pleasant as diets with salt, we who use this treatment have records of a hundred patients following this diet faithfully against every single one of our opponents' patients who break the diet. Our patients do not belong to the noble company of martyrs but are average human beings. A certain proportion make slips or abandon the diet, just as occur in diabetic treatment, but the great majority are faithful when properly trained. As a matter of fact, the prevalent skepticism concerning the salt-free treatment is due chiefly to the general failure to carry it out accurately. Berger and Fineberg have merely added themselves to a series of writers who have asserted that such a diet is not practically feasible. Though all their other statements thus lose credibility in the eyes of those having real knowledge of this subject, they may serve as an illustration to convince general practitioners that the correct administration of a salt-free diet is not so simple as it sounds and ordinarily requires trustworthy institutional care at the outset.

(4) Students of metabolism know that control of the diet is usually easier than exact collection of urine. In any institution where violations of diet are common, it is fairly certain that urinalyses are still less dependable. Besides the deep-rooted tendencies to carelessness on the part of patients, nurses and interns, there is sometimes the added incentive of throwing away some urine to prevent detection of a break of diet. Therefore, without intent of unkindness, a question may be raised whether the urinary records afford a reliable index of the salt intake. Also, we may perhaps assume that iodides, bromides, sodium bicarbonate and similar salts were prohibited during the tests, though this point is not covered by any specific statement.

(5) Attention should be directed to the failure of Berger and Fineberg, Mosenthal, Christian, O'Hare and all other opponents to

describe any relief of symptoms such as dyspnea, dizziness, headache, etc. A number of physicians, who in treating patients at home cannot reduce the salt intake low enough to obtain an appreciable reduction of pressure, nevertheless use the method as far as possible for sake of the striking clinical relief obtained. This record should be useful some day in forming a final estimate of the accuracy of clinical observation on the opposing sides.

(6) It is an elementary fact, discounted in advance in my first publications, that there is a form of vascular (or tissue) injury which creates a tendency to edema with corresponding salt retention, and another form of vascular injury which gives rise to hypertension and to an aggravation of this hypertension by salt. The 2 forms of injury may be mingled in varying degrees in the same case, or they may be strictly separate. Berger and Fineberg fall into the same error as Mosenthal in imagining that the effect of salt should be similar in a nephrosis case as in a hypertension case, when the underlying organic injury is radically different. They devote their case 12 and their chart No. 3 to this demonstration which has no bearing on the subject.

(7) I have also pointed out previously that many edemas cannot be cleared up by salt-free diet, yet nobody seeks to argue from this fact that salt restriction is useless for edema; and, likewise, failure of salt-free diet in some of the severest hypertension cases does not furnish a general argument against the method. The converse likewise holds true; a patient may recover from a temporary toxic disturbance in spite of any diet. Berger and Fineberg illustrate with their case 13, a sore throat in a small boy followed by acute glomerular nephritis with both edema and hypertension. With an intake of first 15 gm. and then 5 gm. of salt daily, the entire condition cleared up because the patient was getting well. Berger and Fineberg interpret this as an argument against the significance of salt for hypertension, but not as an argument against its significance for edema.

(8) After the above preliminary criti-

isms, the way is open for consideration of the main body of Berger and Fineberg's paper, namely the summary of 11 hypertension cases which are alleged to demonstrate the failure of salt-free diet. First we must analyze the general method employed. The work of Berger and Fineberg, though less accurately carried out, was better planned than that of O'Hare, but they shared one of O'Hare's errors in the peculiar obsession for putting patients to bed. This is supposed to contribute accuracy by standardizing or stabilizing the pressure. As a matter of fact, patients in bed still remain susceptible to visitors, temper and all sorts of accidental variables; but what else happens with this plan? Employing for convenience the term "functional" for the changeable element in the pressure which can be influenced by therapy, and "organic" for that fixed residuum of hypertension which is practically incapable of reduction, we must recognize that bed rest is a well tried and established treatment for temporary control of the functional factor. A large proportion of the hypertension cases seen by the average doctor can be reduced to normal or nearly normal pressures by a suitable period of bed rest. Inasmuch as salt-free diet does not make a reduction to subnormal levels, a test of this diet after the above preparation of these cases would prove negative. In other words the plan employed by O'Hare and by Berger and Fineberg will artificially produce negative results in the very class of cases which are most responsive to any functional therapy. The vital difference is that when the relief is obtained by rest, the pressure goes up after the patient gets up, and in the course of years there is the usual downward progress to a fatal termination; whereas the same relief of pressure accomplished by diet is permanent and the progressiveness is arrested. In cases with a larger "organic" element, the relief of pressure by bed rest is not so complete, and it is true that an additional relief by salt-free diet is demonstrable with accurate tests. This effect, however, is reduced to a minimum, because of the extent to which the "functional" element has already been relieved by rest.

This is the absurdity committed by the authors who imagine that they should use two treatments of hypertension in order to test one of them. In our own work we have changed the patients' natural habits to the least degree compatible with institutional environment or in control cases under suitable conditions have even treated them at home. We have found no excessive pressure fluctuations in the average of such patients as compared with bed patients. If we can reduce pressure without any other treatment, if we can relieve symptoms, if we can produce a radical lasting change in the condition as known to the family physician for a long time preceding, we consider that we have a positive result.

(9) The blood pressure figures of Berger and Fineberg are summarized as single averages for entire periods. As the changes of pressure under dietary influence are slow, it would be more instructive to give the average pressures for a few days or a week at the beginning and end of each period. The method used may not conceal results altogether, but it tends further to minimize them.

(10) The duration of institutional care (19 to 75 days, average 39) sounds impressive until one observes the use made of this time as shown in the individual case reports. Patient No. 1 was in the hospital from June 20 to August 10, and was tested on 4 different diets. This is a fair sample of the procedure. Especially in view of the huge rations of 10 to 25 gm. salt sometimes given, anybody familiar with the slow changes obtainable by treatment in this chronic disease will recognize that the too rapid variations of diet would alone vitiate the results. It is true that rapid falls of pressure are sometimes obtainable, but they cannot be counted on as a rule. The 1 patient (No. 11) who remained 75 days might have had ample time for trial of her 3 diets under ordinary conditions, but this case was obviously of a severe type which could have responded only to long and thorough treatment or might have proved entirely refractory. Furthermore, it was noted

above that the authors were unable to carry out prolonged salt-free diet.

(11) Another erroneous assumption is that intravenous injection of salt must immediately raise the pressure. It is true that by choosing cases at the right stage of severity, this demonstration can be furnished, and a few examples were given in my first paper on this subject. But although no fatalities occurred, it was soon evident that such tests were too dangerous to continue. These results are not to be expected with cases of a less extreme type, where the effects of salt given by any channel are usually slow, and where there also appears to be a curious lack of difference between the effects of 5 gm. and of 25 gm. As a comparative illustration, most diabetic patients can be abruptly deprived of carbohydrate and given as much fat as they can eat without developing dangerous acidosis, but this does not disprove the additional fact that patients at the right stage of severity, without insulin, can be thrown suddenly into coma by this change. Likewise, the experiments of Berger and Fineberg in milder cases do not affect the validity of my few results in severe cases.

(12) A series of 11 cases is very small, and the conclusions will be strongly affected by the interpretation in each individual case. The following details may be reviewed:

(a) Patient No. 6 had average pressure of 174/96 on unrestricted diet, and an average of 168/98 for 9 days of salt-poor diet. This would appear as a negative result, but at the end of this low salt period the pressure was down to 135/90, with symptoms of salt privation. This seems to illustrate the possible wrong deductions from the method of averages, mentioned under (8). Furthermore, the authors immediately spoiled this result by giving 10 gm. of salt per day, although it has been fully explained in my publications that the privation symptoms are relieved by 1 or 2 gm. of salt, and even this small amount can generally be again withdrawn after a few days. If the authors did not intentionally spoil the benefit, they at least failed to man-

age the condition intelligently so as to furnish a possible chance of benefit. After nearly a year at home, the patient returned showing the usual change to a more stubborn state of pressure. Her treatment then did not produce a fall of pressure as expressed in averages, but also it was not carried to the point of privation symptoms.

(b) Case 3 in the first admission had average pressure of 201/110 on unrestricted diet, 194/111 on less than 2 gm. salt per day, and 195/112 on less than 1 gm. per day, giving the appearance of an essentially negative result. The graphic chart available in this instance shows a distinct suggestion of a falling tendency in both the systolic and diastolic pressure on low salt, with a rise following some days after the apparent break of diet. The inference that this case might have responded to prolonged thorough treatment will not appear forced to those acquainted with the behavior of the pressure curve under this method. A similar suggestion can be made for the salt-poor period in the second admission of this patient.

(c) In 2 cases (9 and 10) there was a fall of pressure with salt restriction. Subsequently with 10 gm. of salt there was a rise of pressure in case 10 but not in case 9; but the shifts of diet were unduly rapid in case 9.

(d) In 4 cases (Nos. 1, 4, 7, 11) cardiac decompensation was present. One characteristic of salt-free treatment, in contrast to all artificial depressants, is that in decompensated cases the first sign of benefit may be an actual rise of blood pressure due to improved heart action. With sufficiently prolonged diet a subsequent reduction is obtainable, unless the case is too refractory. There should be intelligent consideration of these clinical conditions which are beyond the mere blood pressure readings. The unduly rapid diet changes precluded proper observation in such cases.

Because of the above circumstances of management and interpretation, this series of cases does not seem suited for establishing a conclusion one way or the other.

(13) In view of this failure to obtain any

clear clinical result, the findings of Berger and Fineberg on the plasma chlorides must also be considered valueless. In recent years the ominous import of low plasma chlorides, in cases approaching uremia or pseudo-uremia, has become sufficiently familiar. The favorable prognosis attached to the opposite state of high plasma chlorides was described as being far from infallible and subject to various exceptions, but I am pleased to have been one of the early observers of this contrast.

(14) It is a rule of criticism that positive results outweigh negative ones. Also, all the publications adverse to the salt-free treatment represent observations which are trivial in number and duration, as compared with the vastly greater number, variety, and completeness of records published by myself and other upholders of this method. In other words, the pronouncement of the A. M. A. editorial writer is not based upon one shred of scientific evidence, but amounts to a simple statement that he believes the testimony of our opponents and disbelieves that of myself and friends.

(15) It is possible to try the issue also on this last ground. The observations of Berger and Fineberg date from the years 1923 and 1924. It is commendable conservatism on their part to have been thus deliberate in publishing. But the time elapsed is also sufficient for some survey of the later case results. Why has this been omitted? How many of these patients are alive today, and in what condition? This may appear as a minor detail, except to the patients themselves and to such physicians as attach importance to mere survival and welfare.

My own mortality figures have been published fully, with due consideration of the prognostic import of retinitis, heart complications, diastolic figures persistently above 120, and other factors. Where are the comparative statistics of opponents? It may be contended that the cases of others are more severe. But more probably an institution which claims a special efficacy of treatment becomes a target for desperate cases which physicians send

while keeping their easier cases at home, the result being that our diabetic, nephritic and hypertensive cases average more severe than in an ordinary hospital clinic. It may be intimated that the intensity of the symptoms, the degree of benefit and the duration of survival are exaggerated in our reports. But, with all candid allowance for limitations and failures, we arrive here at the point where we can supply proof in the form of living patients and the testimony of their physicians. This proof is gradually convincing the fair-minded. There is nothing to amend in my published statements, except that the time for judging the results of treatment should be longer and the failures are then fewer than originally admitted. Also the supporters of this method can no longer be condescendingly portrayed as isolated fanatics struggling against the scientific authorities, but the increasing adherence of practitioners and specialists to this view begins to cause a shaking in some academic chairs. For these reasons I could have afforded to preserve silence, awaiting the time of enlightenment when even the A. M. A. Journal shall render the complete retraction and apology which was formerly demanded and which it cannot ultimately escape.

With the above few exceptions, I do not at present think of any faults in the position of the A. M. A. writer or of the authors whose work is approved by his critical judgment. Undoubtedly there are opportunities for new discoveries in all directions concerning hypertension. But as a record of the past, let it be written that I claim originally to have developed the idea of salt restriction for hypertension without knowledge of the prior work of the French school and to have been the first to apply it accurately enough to control the great mass of hypertension cases; also, that nobody shared this view at first, and after 10 years of demonstration the opponents were still predominant in noise; also that this simple method properly applied will save more lives than insulin. Let the future then decide whether this record is one of credit or discredit.

BLASTOMYCOSIS WITH PULMONARY INVOLVEMENT AND RECOVERY

F. J. ALTSCHUL, M.D.,

Long Branch, N. J.

Visiting Physician, Monmouth Memorial Hospital,
Long Branch, and Monmouth County Tuberculosis Hospital, Allenwood, N. J.

Since Gilchrist's report, in 1894, of the first recognized case of cutaneous blastomycosis, numerous similar cases have been recorded, but reports of generalized infection are less numerous and reports of pulmonary disease caused by the blastomyces, with recovery, are very rare indeed; a study of the literature discloses only 4 cases where there was recovery after extensive pulmonary involvement. The first cases of systemic blastomycosis were reported from Illinois by a group of Chicago workers; notably Stober⁽¹⁾, who has given us the best description of this disease. Since that time cases have been reported in about 15 states, mostly, however, from southern and midwestern states. As far as we can determine, the case described below is the first to be reported from New Jersey.

In recent years many writers are emphasizing the frequency and importance of fungus infections, particularly those causing pulmonary lesions, the general belief being that many of these cases go unrecognized or are most often mistaken for tuberculosis. Weidman⁽²⁾, in a masterly article, recently discussed the importance of fungi in the pathogenesis of many diseases.

From a practical point of view, bronchomycosis may be classified as follows:

(1) Due to "yeast-like" fungi, i. e., fungi of the type *Blastomyces*, *Cryptococcus* (Torula), *Saccharomyces*, *Monilia*, *Endomyces*.

(2) Due to filamentous fungi: (a) of the slender type, i. e., *nocardia*, *anaëromyces*, *vibriothrix*; (b) of the larger size—*oidium*, *hemispora*; (c) with characteristic conidial structures and fructifications, i. e., *aspergillus*, *penicillium*, *mucor*, etc.

Even a very cursory study of the literature on fungus infections impresses one with the confusion that seems to exist in regard to the yeast-like organisms. Owing to their numer-

ous genera, striking similarities, minute differences, and marked variations under different cultural conditions, a standard classification is still far from being reached.

The term *blastomycosis* is becoming more generally used and, while recognized as a distinct clinical entity, some mycotic pathologists, particularly Castellani and Chalmers⁽³⁾ believe that it is not a disease caused by a single etiologic agent but rather a condition produced by one or more of several closely related yeast-like fungi. The organism responsible for the case described below presented characteristics identical with the majority of blastomyces hitherto reported, namely, a spherical yeast-like body, with a double-contoured hyaline capsule enclosing a finely granular protoplasm.

Since pathogenicity of the blastomyces for man was first demonstrated it has been shown by numerous autopsy reports that practically every structure of the body can be invaded in the systemic infection. Independent of the organ involved, the blastomyces produce lesions sometimes indistinguishable from those caused by the tubercle bacillus. Cutaneous blastomycosis greatly simulates tuberculosis verrucosa cutis; pulmonary blastomycosis greatly resembles pulmonary tuberculosis; bone involvement (there seems to be predilection to spine) may give a picture indistinguishable from Pott's disease, and meningeal involvement may resemble tuberculous meningitis.

Pulmonary blastomycosis may be difficult to distinguish from tuberculosis even after pathologic study. E. M. Medlar⁽⁴⁾ reports 2 cases in which, even at necropsy, the pulmonary lesions were indistinguishable from old tuberculosis; even on microscopic study no essential difference in the histopathologic lesions could be determined. He describes giant cell formation, and even caseation in the blastomycotic lesions.

The case reported below, showing both cutaneous and pulmonary lesions, presents many interesting points, not the least interesting being a complete recovery under almost unbelievably large doses of iodides.

Case Report. E. D., male, white, single,

aged 43, was born and raised in Matawan, New Jersey. Has never been out of Monmouth County. Occupation: Farmer. Admitted to Monmouth Memorial Hospital, Long Branch, April 15, 1929. Discharged July 19, 1929. Complained of cough with bloody expectoration and fever. Felt well up to 2 months before admission when he began to tire easily and lose weight. Thinks he has lost about 20 lb. in past 2 months, but attributed that to heavy work.

For about 1 month he has been coughing and felt feverish in the late afternoons, but

spur a small red papule developed in the region of the wound. Poultices were applied and the lesion enlarged to about the size of a quarter, became purulent, and broke down. A few days later other similar areas developed adjacent to the original pustule, and they in turn became pustular. In the course of the last 3 months, practically the entire back of the left hand has become involved in a similar manner. Each suppurative spot would slough out, leaving an ulceration which soon became covered with a yellowish crust. This lesion has at no time caused him much pain. No other

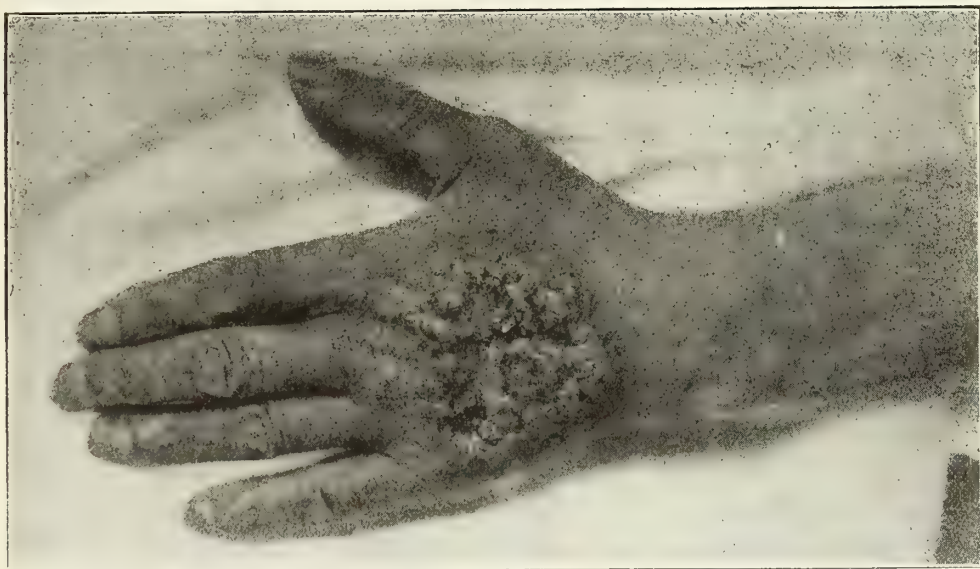


Fig. 1—Blastomycotic lesion.

did not stop work till 10 days ago when he suddenly developed a sharp pain in left side of chest. His cough, which previously had not been particularly severe, became immediately worse, and productive of large amounts of thick, blood-tinged sputum. A few minutes after the onset of the pain he was seized with a severe chill. During the past few days the pain has subsided somewhat but the cough and bloody expectoration have increased. On the day before admission, he thinks he raised at least a pint of sputum. Profuse night-sweats for the past week.

About 3½ months before admission a locust "spur" became lodged in dorsum of left hand. A few days following removal of the

lesions have appeared in other parts of the body.

Physical Examination. Temperature, 100°; pulse 120; respiration 30. A poorly nourished, cachectic-looking, white, middle aged man, looks chronically ill. Slightly dyspneic; slight cyanosis.

Left lung. Marked restriction of expansion, impairment of resonance, and increase in tactile fremitus over entire left lung from apex to base anteriorly and posteriorly down to about fifth vertebral spine. Over this area is heard bronchial breathing with many fine and medium râles.

Right lung: No deviation from normal.

Heart: Apex in fifth space, midclavicular

line. Sounds of good quality and no murmurs heard. Accentuation P2. Blood pressure 110/65. Pulse regular, of good quality, equal and synchronous with apex beat.

Left hand: Covering almost the entire dor-

sion with a thick, viscid, yellow pus exuding from between the projections. The diseased area is apparently not painful and there is no epitrochlear or axillary glandular enlargement. Moderate clubbing of fingers.

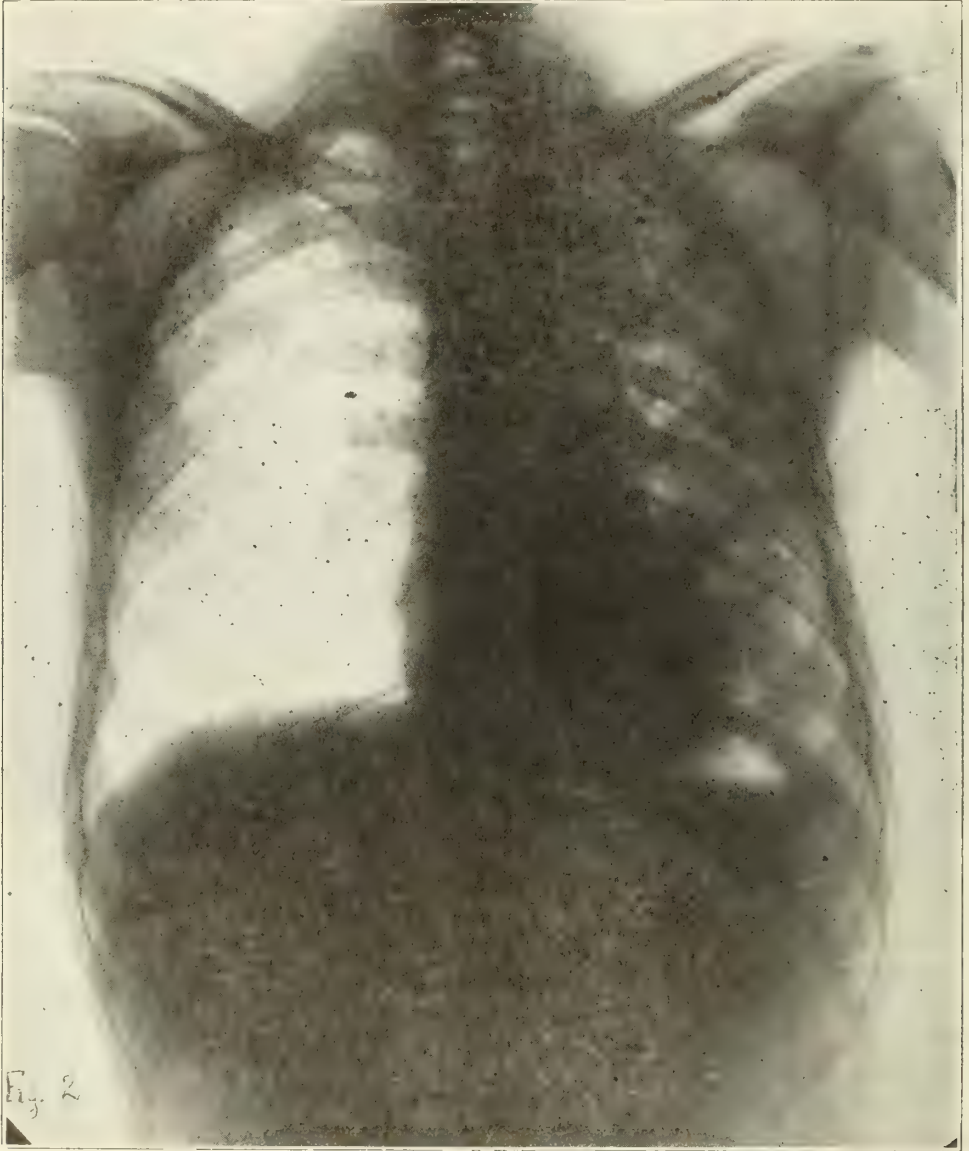


Fig. 2—Roentgenogram (on admission, April 15, 1929): Shows definite infiltrative pathology of the entire left lung field. There is some retraction of the mediastinum and heart toward the left. The ribs are contracted.

sum is seen a large verrucose patch, the borders of which are sharply defined, raised, and of a deep purplish color. The patch is completely covered by a thick yellow crust which when removed discloses a papillomatous le-

The diagnosis of cutaneous and pulmonary blastomycosis was made as follows:

Cutaneous lesion. Tuberculosis verrucosa cutis was considered in the diagnosis but ruled out by finding blastomyces in the pus from the

lesion and in the section of skin obtained at biopsy. (See Fig. 3)

Pulmonary lesion. Roentgenographically the lung involvement greatly resembled tuberculosis, but this was ruled out by (a) failure

oculation was done, but unfortunately the pig died of general septicemia in 4 days.

Treatment and subsequent course. As soon as the diagnosis was established the following treatment was instituted: (1) High caloric diet; (2) ultra-violet radiation to chest; (3) x-ray treatments to hand—4 suberythema doses; (4) iodides. A saturated solution of KI, 5i t.i.d., was given from the start, and after 1 week, with no signs of iodism apparent, an intravenous injection of 31 gr. sodium iodide was given every day for 8 injections. After 2 weeks of treatment, the temperature (which had ranged between 100° and 102°) began to come down; the cough and expectoration diminished greatly; skin lesion began to improve (see Fig. 4); and the physical signs in the left lung showed some improvement, which was corroborated by a radiogram. After 4 weeks of treatment, the temperature went up to only 100° occasionally at 4 p. m. and the only physical signs obtainable in left lung were some bronchovesicular breathing and some medium coarse râles and rhonchi-over left base. Radiogram (see Fig. 5) showed marked clearing in the region of the apex and upper portion of the lower left lobe.

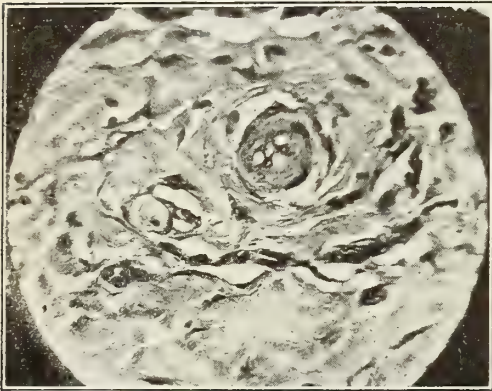


Fig. 3—Microscopic section from skin lesion showing granulomatous tissue. Note giantblast containing several blastomyces.

to find acid-fast organisms in 18 sputum specimens (some done by concentration method) and (b) finding the blastomyces in the sputum repeatedly (examination of fresh sputum treated with NaOH 10%). A guinea-pig in-



Fig. 4—Skin lesion after 2 weeks' treatment. Note clubbing of fingers.

During the subsequent 10 weeks he was in the hospital his improvement became more evident. Iodides by mouth were continued throughout this period, as the patient did not show the slightest symptoms of iodism. On

Note: The patient was seen on September 20, 1929, and at that time felt fine and was back at work; no pulmonary or skin recurrences.

Comment: An interesting point arises

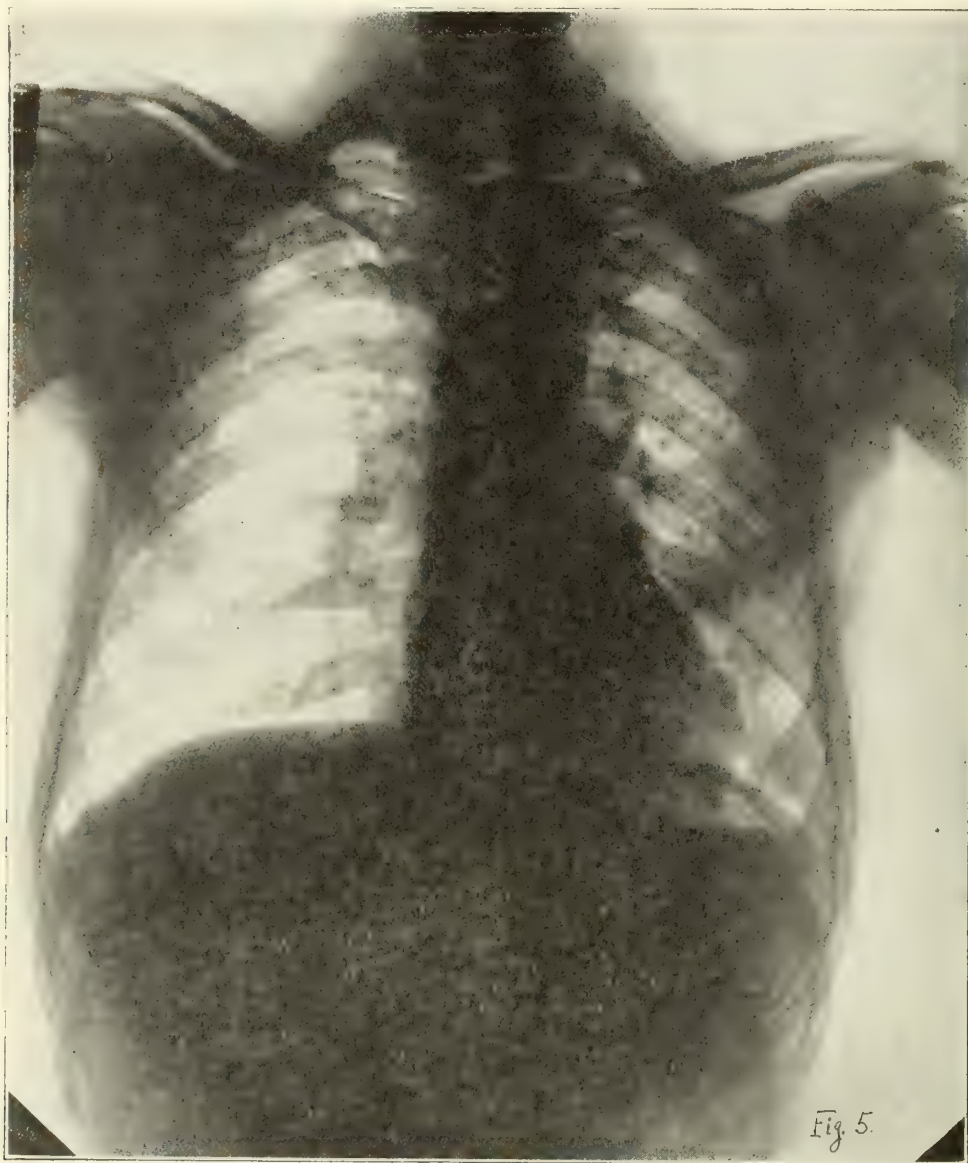


Fig. 5—Radiogram taken after 4 weeks of treatment.

the day of discharge (July 18, 1929) patient showed absolutely no physical signs over left lung; he looked the picture of health, having gained 32 lb. during his 3 months' stay at the hospital. The skin lesion completely healed. Radiogram on discharge was negative (see Fig. 6.)

whether the skin lesion was the original focus, and the pulmonary lesions were metastatic. If so, the case is remarkable in that lesions of other organs did not develop (as in most reported cases of systemic blastomycosis); and most of all in that complete recovery was obtained. There is experimental proof that there

can be metastatic localization in the pulmonary tissues alone. Wade⁽⁵⁾ noted pulmonary infection following subcutaneous inoculation with blastomyces.

The huge doses of iodides tolerated with-

Stober mentions the apparent tolerance that these patients have for iodides.

The subject of pulmonary lesions of fungal origin deserves to attract more attention that has been the case hitherto. The subject

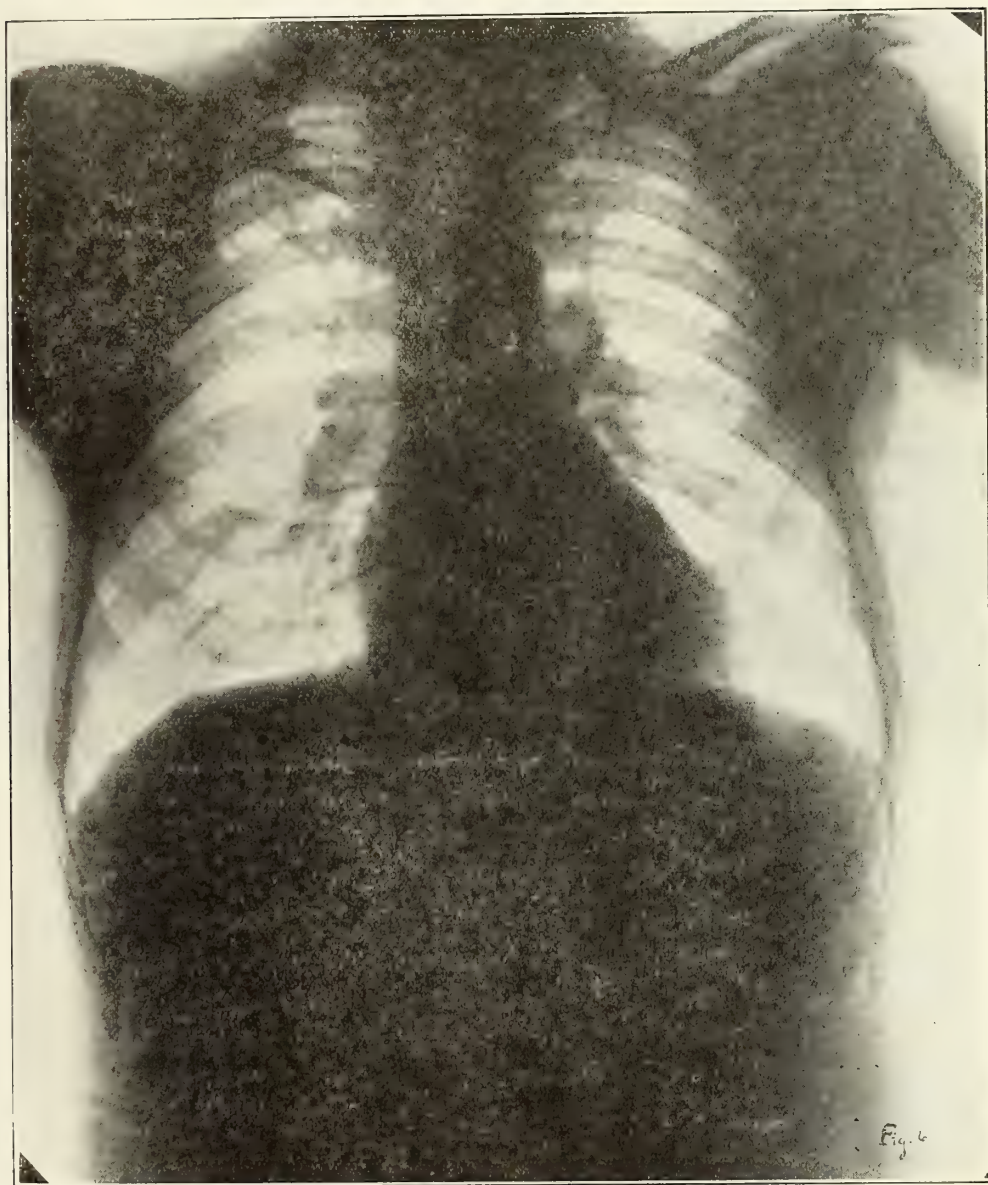


Fig. 6—Radiogram taken after 12 weeks of treatment.

out symptoms of iodism are astounding when one considers that this patient received 180 gr. potassium iodide daily for 3 months, and that for 2 weeks he received, in addition, 2 gm. of sodium iodide intravenously every other day, (totalling 211 gr. iodides on those days).

is of practical importance, no doubt more common than is generally believed. If the diagnosis can be made fairly early, a cure can be obtained.

REFERENCES

- (1) Stober, A. M.: Systemic Blastomycosis. Arch. Int. Med., 13:509.

- (2) Weidman, F. D.: Place of Fungi in Modern Medicine. *Am. Jour. Med. Sc.*, 178:832.
 (3) Castellani, A.: Internal Mycoses. *Med. Clin. N. A.*, 11:1123.
 (4) Medlar, E. M.: Blastomycosis. *Trans. Nat. Tub. Ass.*, 23:230.
 (5) Wade, H. W.: *Phillipine Jour. Sc.* 13:271.

INCIDENCE OF BACILLUS ABORTUS AGGLUTININS

ROBERT A. KILDUFFE, A.M., M.D.,
 FLORENCE K. FITZPATRICK AND
 EDNA D. WILSON

From the Laboratories of the Atlantic
 City Hospital

Atlantic City, N. J.

The marked agglutinin production in undulant fever not only facilitates clinical recognition of the disease, despite the inconstant and confusing symptoms, but its persistence enables a study of the incidence of the disease even when its occurrence has been unrecognized.

Hull and Black⁽¹⁾ in a study of 69 serums tested for the Widal reaction encountered 5 agglutinating *B. abortus* suspensions in dilutions of 1:200 or over, and concluded that the disease may be more common than is ordinarily suspected. This assumption has been amply confirmed by numerous studies reported from various localities.

For the purpose of determining the incidence of unrecognized cases of undulant fever in this locality 500 serums received for Wassermann tests, which included a small number sent in for the Widal test, were examined for the presence of *B. abortus* and *M. melitensis* agglutinins. The serums were secured mostly from patients in the wards of the Atlantic City Hospital, the balance being from private outside patients.

The Wassermann tests, in general, were part of a routine examination. The Widal tests were suggested by the symptomatology.

All agglutination tests were done by the macroscopic method, using formalinized antigen suspensions, and with serum dilutions ranging from 1:20 to 1:640. Despite the well recognized cross agglutination between *abortus* and *M. melitensis*, as both cultures

were available both suspensions were used in each test.

In only 10 of the serums tested were there any clinical evidences, compatible with the presence of undulant fever, the great majority being subjected to routine examination for serologic evidence of syphilis, which was found in 53, or 1%. There were 4 cases of typhoid fever and 1 of paratyphoid (B), all bacteriologically confirmed, in none of which *abortus* agglutinins were demonstrated.

The reaction was consistently negative in every case but one, a short résumé of which is appended:

C. H., white, male, aged 66, salesman, was admitted to the medical wards April 4, 1929, with a chief complaint of pain in the muscles of the back for the previous 10 weeks. The present illness began with an attack of grippe in January, following which he had persistent myalgia so painful that he was confined to bed. He had an infected hand which was incised 3 weeks prior to admission. Temperature on admission 99°, pulse 80. On April 25, the temperature rose to 101°; and to 103° on April 29, after which it gradually subsided to normal on May 2. Physical examination showed a marked increase in the lumbar curve with a flattening of the dorsal. Motion in the spine restricted in every direction. There was some spasticity of the left erector spines and the spinous processes were sore to pressure. The greatest discomfort, however, was in the right loin. There was an evident osteoarthritis of the spine, presumably infectious in origin.

The blood count on admission showed: Hb. 45% (6.21 mgm. %); R.B.C., 2,980,000; W.B.C., 8600; polys., 52%; small monos., 48%. Blood calcium 13 mgm. %. Blood culture negative after 5 days (aërobic and anaërobic). Culture from lesion on the hand gave a mixed growth of streptococci and *Staph. aureus*. Agglutination reaction positive for *B. abortus* and *M. melitensis* in 1:160 dilution. Repeated one week later the reaction was positive in a dilution of 1:320, this being during the febrile period.

The patient was discharged improved on May 28, 1929. Whether or not this was a

case of undulant fever is a matter for speculation. On the one hand, the symptomatology is not inconsistent with undulant fever, but on the other it may be equally well accounted for by the osteo-arthritis present. The patient's occupation, the denial of any contact with goats or cows, or of the free use of milk, renders the source of infection difficult to determine. The increase in the titer of the reaction following a febrile reaction evidences the presence of new agglutinins which in turn predicates the presence of the antigen. This fact strongly supports the presumptive diagnosis of undulant fever.

In any event, the failure to find agglutinins for *B. abortus* or *M. melitensis* in all but one of the serums tested suggests that incidence of the disease is low in this locality.

1. Hull, T. G., and Black, L. A., Undulant Fever as a Public Health Problem, *Jour. A. M. A.*, Feb. 12, 1927; 88:7:463.

PROBLEM CHILDREN

HOWARD W. POTTER, M.D.,
New York City

Assistant Director, Psychiatric Institute and Hospital, Columbia Medical Centre, New York City,
and Clinical Professor of Psychiatry, Columbia University, College of Physicians and Surgeons

Behavior is common to every living thing from the simple ameba to the complicated mammalian vertebrate which in its highest biologic form is known as man. Behavior in each instance is the culmination, in some overt form, of the response of the individual to his environment. Thus we postulate that if we are to completely understand behavior we must be fully cognizant of the environment in all its various aspects and in possession of all available facts concerning the biologic equipment and the physiologic activity of the individual.

Civilization, through a long process of cultural, intellectual, and ethical evolution has gradually built up certain standards of behavior varying to a degree in different types of civilization. By such standards are responses of the individual members of society to the

environment judged as social or antisocial. Just as there has been a phylogenetic social development, so there must be an ontogenetic development. In other words, the individual human being is expected to evolve socially in the short space of less than 2 decades to the same point where it has taken the whole human race many thousands of years to arrive. Social behavior is transmitted from generation to generation by precept and example, but it is not inherited through any biologic mechanism. The human being born into the world today has to depend upon his biologic equipment and the factors within his environment for his evolution into a being acceptable and able to meet the demands of society.

Education, using this term in its broadest sense, is the only process we know of by which the new-born infant, a bundle of nerve and muscle endowed with only the rudiments of self-preservative and race-preservative instincts, may eventually learn to adjust his wants, demands, instinctive cravings, etc.; in a word, his behavior, to meet the requirements of society.

How successfully the individual will adjust to his environment depends upon 2 groups of factors—those concerned with his biologic equipment and those concerned with his environment. It is through the interplay of these groups of factors that the child eventually develops a technic for establishing outlets for his inherent drives which are both personally satisfactory and socially acceptable. In many instances individuals fall so far short of this ideal, either because of defective or damaged biologic equipment, or faulty environment, that certain abnormal behavior phenomena appear. In such instances we see what is known as antisocial behavior on the one hand, neuroses and personality defects on the other, and not infrequently a combination of both.

The demand for self-assertion and the facility for developing reaction patterns (habits) are the fundamental mechanisms involved in the social development of every individual. The demand for self-assertion, self-expression, satisfying the ego, requires the kind of guidance which will serve to direct rather than re-

press the child's interests and activities and, if wisely guided, will eventuate in group consciousness and personal adaptability. Repression, on the other hand, is apt to result, sooner or later, in open rebellion, a neurosis, or a defective personality.

Dr. Thom, of Boston, writes: "Habits are acquired by experience, training and education. Their development begins at birth and they become the standards by which the individual is judged by his fellow men. Very early in life the child exhibits certain tendencies toward the simplest problems of his every day life, such as sleeping, eating and eliminating, just as later on in life he has well formulated ideas about exercise, paying his bills, and going to church. These tendencies which gradually become habits by constant repetition go to make up what we call personality and the more frequently they are repeated, the more likely they are to become permanent * * * * Habits are dependent, to a very large extent, upon the effect that a great variety of environmental conditions and circumstances has had upon the mind of the child who is extremely plastic and prone to accept suggestions and to imitate that which he sees and hears. Childhood, therefore, is the best time to establish desirable habits and to alter and eliminate such habits as will work out to disadvantage of the child in later life. Childhood is the golden age for mental hygiene. The plasticity of the human mind decreases rapidly as age advances. * * * * Undesirable habits of behavior and personality defects in children should receive serious consideration. Our efforts should be directed toward determining the cause, removing it, and substituting for it the proper mode of response."

Thus, in each instance of a behavior disorder or personality defect in children we are bound to find something fundamentally wrong either in the environment or in the biologic equipment of the child, and sometimes in both. In dealing with children presenting such problems the utmost care is required in making a complete survey of the situation. The family stock, the life history of the child, including his management, development, accomplishments or failures, his behavior and his illnesses and in-

juries, require a thorough investigation. Next in order is a careful examination into his various somatic systems, his emotional patterns and personality make-up, and an analysis and evaluation of his intelligence.

There are 3 main aspects of the environment which may be found faulty:

Home and Parents. Concerning this, Thom says, "Some parents by always looking for illness make small ills far worse and give children a habit of being sickly when they would be in better health to forget themselves. This is often the beginning of a habit in children of using illness as an excuse to avoid going to school or to gain the extra attention which is pleasant. Parents sometimes by unreasonable fear that their children will get hurt deprive them of the healthful outdoor sports which would give them strength, courage, and resourcefulness which they will be so much in need of when they reach adult life. Some parents baby and cuddle their children too much. This is due to an abnormal emotional state of the parent and undoubtedly gives the parent far more satisfaction than it does the child. As an outcome, we often see the child who refuses to eat unless his mother feeds him, or who refuses to go to bed unless one of the parents remains with him until he goes to sleep. Others make the mistake of trying to gratify every wish of a child just because he wants it so; a poor preparation for the hard matter-of-fact world, in which the child will have to take his place some day. Others make the mistake of telling the child anything, regardless of its truth, in order to get the child to do what is wanted of him. This destroys confidence and easily leads the child to a habit of lying. Some parents boss their children too much and hence give them no practice in independent thinking and doing, and others erect around their children a veritable barrier of 'don'ts' and 'stops'. Temper tantrums are usually indulged in because the child has learned by experience that this is a certain way of getting what he wants and getting it quickly. They are often the reflection or imitation of the temper of some one else in the home."

A home atmosphere surcharged with ten-

sion, excitement, bickering, and incompatibility is often the basis of a behavior problem or a neurosis in the child.

School and Teachers. Children are supposed to fit the school system; it is only of late years, and only in scattered communities, that educators have begun to realize that there really might be something gained in trying to fit the school to the child. It is the child who does not fit the system, for one or another reason, who is apt to develop personality twists or conduct disorders from the school room. Such children may develop the habit of failure and give up trying; others become indifferent not only in school, but in the home and community as well. Others develop neurotic manifestations and a fear or dread of the class room, which attaches itself to situations outside of the class room. Some compensate by misbehavior, as it is only in this way that they can attain some measure of success. Others become habituated to truancy which is sometimes the start of a delinquent career. It has been stated that 95% of the inmates of the Elmira Reformatory began their delinquent career with truancy. The neurotic teacher and the teacher who works out her problems on her pupils is not infrequently at the basis of a problem in one or more of her pupils.

Community and Playmates. Adequate recreational and playground facilities wisely supervised are essential for the proper development of the child in urban districts. Absence of these throws the child on the street, the alley and the vacant lot where unsupervised, he is apt to come into close contact with undesirable associates, both young and old.

Factors within the child himself may be productive of one or another kind of behavior problem or personality defect. The presence of a deformity or some similar handicap, which in itself has no direct bearing on the mental life of the child, often is a source of supersensitiveness and timidity. It is often at the base of a tendency to withdraw from contact with other children and is the starting point for an inferiority complex. Mental irritability may be associated with defects of vision, diseased teeth, and uncomfortable

clothing. Fatigue, as a result of faulty habits of living, and toxemia from chronic infections is sometimes at the root of an irritable, temperamental personality. Infections of the central nervous system, especially meningitis and encephalitis, together with severe head trauma are very often followed by abnormalities of behavior of one kind or another. Endocrinopathies are occasionally the basis of a psychiatric problem in children.

A large group of problem children are those handicapped by a subnormality of intelligence. Time does not permit a discussion of this important group, but it is sufficient to state that many of the problems of behavior seen are not primarily dependent upon intelligence difficulty, but are a result of the feeling of inferiority these children develop when not given the opportunity they need, especially in the schools, and are forced to compete on unequal terms with their more normal school mates.

Treatment. No specific form of therapy can be laid down for any particular form of psychiatric problem in childhood. Two children might present identically the same problem on superficial appearance, but developments in each instance might be greatly dissimilar. For instance, the last 3 cases of truancy I have seen are alike only in the fact that they have failed to attend school regularly. One was a girl 10 years old who was in the fourth grade in school with an eczema of the hands. The teacher had refused consistently to let her hand in her papers for correction, as she was afraid of infection. On one occasion she made another pupil return a pencil she had borrowed from the patient, making the remark—"Do you want to get sore hands too?" This attitude of the teacher infected, as it were, the patient's class-mates so that she was soon a veritable outcast. The patient complained about her ostracism at home but was met by rebuff and an unsympathetic attitude. The situation culminated in the child wandering about the streets instead of going to school, and eventually being picked up by the truant officer. By this time she had met such an unsympathetic attitude all the way round that she could give no

reason for her non-attendance except the simple statement—"I don't want to go to school". She was so insistent in this that the principal thought there must be something wrong with her mentally and referred her to a Psychiatric Clinic for examination. The treatment consisted in sending her to the dermatologist for her eczema, reassuring the child that she had nothing serious wrong with her, interviewing the teacher, giving the mother some good advice, and getting the cooperation of one of her little play-mates in reinstating her in the group.

Another case is that of a boy 13 years old, in the fifth grade in school, to whom the school failed to appeal after spending 2 years in the fifth grade and 2 years in the fourth trying to absorb the work of these grades with a mentality of 8 years; a mental level which is barely sufficient to cope with third grade work. The treatment considered in having him placed in a special class where emphasis was placed on training his hands rather than his mind.

The third case was that of a boy, 12 years old, who persisted in staying away from school in spite of all efforts of his parents and teachers. We found out from him, after several interviews, that a well intentioned gymnasium instructor had given the boys a talk on sex hygiene in which he portrayed the supposedly dire effects of masturbation, one of them, tuberculosis. Now it so happened that this boy had a chum who developed tuberculosis and was taken out of school and sent to the country. The point in the patient's mind was that attendance at school was not conducive to recovery from tuberculosis. The other point is that this boy, like many boys of his age, was tied up emotionally in his adolescence and quite naturally masturbated, but not to excess. The talk on so-called sex hygiene occurred at just the wrong moment and as usual in talks given by persons who are not particularly well-versed in sex psychology, the wrong thing was said. The field was ripe for the patient to put 2 and 2 together, erroneously of course, and figure that he was

developing tuberculosis because he masturbated. Hence the truancy was only an attempt to solve what to him seemed a very serious situation. Here the whole treatment consisted in "uninforming" the boy, giving him a bit of reassurance, and getting for him a better attitude toward his sex problems and his adolescence.

CONCLUSIONS

(1) Behavior is regarded as social or antisocial according to the prevailing requirements and customs of society.

(2) Behavior may be abnormal because of faulty environment or defective or damaged biologic equipment.

(3) Environment may be found to be at fault either in the home, the school, or the community.

(4) Physical make-up of the individual may be handicapped by deformities, deficiencies, disease processes, disease states, or disorders of metabolism.

(5) Mental make-up of the individual may be handicapped by subnormalities of intelligence and faulty habits of reaction.

(6) Abnormalities of behavior in children are to be regarded as symptoms rather than entities by themselves.

(7) Careful study of the life history of the child, of his hereditary background, physical environment, the personalities of parents, teachers, and others with whom he is in daily and intimate contact, together with a careful physical examination, study of the emotional patterns, and an evaluation of intelligence will usually disclose the roots of the difficulty.

(8) Treatment is based entirely upon what is disclosed by the survey of the whole situation.

(9) Finally, a word of caution about use of the phrase—"he will outgrow it". Too often these problems have become ingrown and these children turn up later in life as psychoneurotic, psychotics, ne'er-do-wells, criminals, and psychopaths of one or another order.

Doctor, have the children in your own immediate family been permanently immunized against diphtheria?

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

STATE SOCIETY-RUTGERS POST-GRADUATE WORK

The promised plan of postgraduate, or university extension, medical courses to be offered to members of the Medical Society of New Jersey through a coalition of that society with Rutgers University, is set forth in detail on page 147. Turn to that page at once and see what is offered, and remember, each of you, that it is offered for your personal benefit. We cannot too highly commend this offering to your consideration. Here we have outlined in considerable detail 2 excellent courses of study; 1 dealing with 4 of the most important medical questions of the day—heart affections, pneumonia, nephritis, and new drug therapy; the other, dealing with the equally important problem of traumatic surgery. It would be difficult to suggest any courses of study of greater value to the general practitioner, for these are subjects with which he must deal daily.

Quite as important as the topics selected is the fact that capable and experienced teachers have been secured to bring these courses of instruction right to your homes; men actively engaged in teaching these subjects in the best graduate schools of New York and Philadelphia.

One of the fundamental objects of those encouraging adoption of this plan has been to arrange matters so that such extension

courses of study could be made available to the busy practitioner with the least trouble and expense; realizing that he cannot afford to leave his work to attend schools at a distance from his home. The plan presented proposes to bring the school to the doctor. There is no county in the state of New Jersey so large that its physicians cannot easily reach a central point within the county to attend lectures of this sort; and every effort will be made in each county to choose the most central and most readily accessible point and to arrange a lecture time schedule with a view to the convenience of the greatest number of those taking the course. Naturally, it would be difficult to canvass all the members of the state society individually, so it is proposed to carry on negotiations through the medium of the county medical societies. Each society will be visited by an agent prepared to explain the courses of study offered, and to answer all inquiries, and then the society's secretary, or someone designated by the society, will enroll subscribing students.

Dr. Cosgrove's committee, with the hearty support of Rutgers' representatives, is doing a tremendously big thing. Give this project your full support. Not only will you thus give approval to an experimental undertaking on the part of the state society, and show appreciation of the labor of this special committee in your interest, but you will have taken

advantage of an opportunity to secure more than value received for your investment.

Read the Special Article in this number of the Journal and be prepared to act when the matter is presented to your county society.

TRISTATE CONFERENCE REPORT

Our department of Current Events is devoted this month to a complete record of the last Tristate Medical Conference and you will find in that report 2 very interesting documents. One of which is a resumé of the benefits New Jersey has derived from 4 years of participation in these conferences; and the total gain is certainly worth the investment of money and labor we have made. The other article is a summary by our Field Secretary, Mrs. Taneyhill, of what has been accomplished in the line of public education in medical matters during the same 4 years, and an illuminating explanation of what she is now doing in that field. Her work should have every encouragement and all the support we can give it, for the present indications are that it will be productive of very satisfactory results. You can well afford the time required to read these reports and the discussions thereof by officers of the medical societies of New York, Pennsylvania and New Jersey.

IN THIS NUMBER

Seldom have we had the privilege of publishing such a practical paper as Professor Dandy's dissertation on "Injuries of the Head". Those of you who had the good fortune to hear him at the annual convention will remember the masterful way in which he presented his subject; so clearly and so simply as to diagnosis, and with such sound advice as to treatment of the varying conditions resulting from injury to the cranium and its contents. You now have the opportunity to read his instructive message and to leisurely study all the important points presented.

Of scarcely less importance to the general practitioner are the papers by Drs. Weigel and Keppler, in view of the frequency with which accidents are happening these days,

with resulting serious injuries to the bony structure of the body, and in further consideration of the frequency with which suits for malpractice are being instituted on the basis of claimed dissatisfaction with the treatment of bone injuries. Likewise, the papers by Drs. Allman and Shafer, which complete the symposium on "Traumatic Surgery", are of very practical character and worthy of careful study.

The 3 papers on "Chronic Suppurative Otitis Media" and on "Mastoiditis in Infancy" constitute an interesting symposium and direct attention to conditions that are often neglected in the course of general practice.

Allen's argument, in response to the critics of his "salt-free" diet in the treatment of certain conditions, is not only an interesting polemic but a convincing presentation by one who is apparently very sure of his ground.

CONTRACT PRACTICE

What does the term "contract practice" mean to you? What do those words mean as employed in the "Principles of Ethics" as promulgated by the American Medical Association? Are those words used today in a different sense, and have they properly a different meaning, from that which was in vogue when the above mentioned principles were adopted?

A number of circumstances occurring recently have brought us to the conclusion that a revision of the "code" and consequent revision of the by-laws of some of our medical societies must be considered; perhaps, will have to be made. If we remember correctly, about the only kinds of contract practice existing at the time when the new code was drawn up, consisted in agreements to look after the health of certain groups of laborers living in regions where medical services were not easily, or even certainly, procurable—such as mining districts and lumber camps—or referred to the appointment, election or engagement of selected physicians to care for the medical needs of members of lodges and their families, at "wholesale rates". There has always been some doubt about the wisdom of

applying that section of the code to the first mentioned group; the "lodge practice" plan has always been frowned upon because it placed practice upon a competitive basis and, more particularly, because it almost inevitably meant that persons subscribing to such a plan would not receive proper medical care—certainly not the best care that the profession had to offer.

Now, as is frequently said about other things, times have changed. There are today a number of other conditions under which physicians are employed to render professional service to groups of individuals, where neither the competitive element nor the factor of "mass production" is to be considered. It is becoming necessary, since some of our county societies refuse membership to any physician engaged in "contract practice of any sort whatsoever", to define what is meant by this phrase.

According to the dictionary, a contract is "a formal agreement" to do a certain thing. In the strict sense, then, any formal agreement made (not necessarily in writing) with an individual or group of individuals, with the government or with a corporation, to render professional service of any character, constitutes a "contract"; and, apparently, that strict interpretation is being employed in some of our societies. Let us cite a few examples of practice that have not generally been considered as of contract character and yet which must be so considered under strict application of the definition given: The city, county or state health officer is elected or appointed to look after public health in return for a specific salary; does that constitute contract practice? The life insurance medical examiner undertakes to make physical examinations of applicants, or laboratory examinations of specimens, for a stipulated fee, and in determining such fees consideration is supposedly given to the number of examinations or the amount of service the physician will be called upon to perform during the year; is that a form of contract practice? A medical inspector is appointed for the public school and is paid a fixed salary per annum for general physical examinations of all the pupils, or specified

fees for such special procedures as immunization against diphtheria; is that contract practice?

Undoubtedly, all of the above are forms of contract practice, but certainly no one would consider them as reprehensible forms of contract nor would any physician want to deny medical society membership to any physician engaged in thus serving the community or business corporations.

Another series of examples may be found in that kind of practice that has grown up in recent years, and which is rapidly increasing, with approval of the medical profession in general but about which there is not perfect agreement, perhaps, concerning the ethical character of the contracts. These examples fall mainly in the category of what is generally spoken of as "industrial medicine". The medical profession has encouraged factory owners and department store managers, for instance, to employ physicians to take care of their employees, especially to render treatment in the event of accidents and emergency illness, and the employers have learned that it pays to keep the employees well rather than to permit them to become sick from any cause. Having promoted the idea, will we now declare that physicians engaged in such work are unethical?

There are many other aspects of this question that need to be thought about, but it is a subject for a lengthy dissertation and cannot be condensed into the normal limits of an editorial. We intended only to suggest that you give some thought to this question of contract practice, in all its ramifications, and be prepared to take part in its settlement when the opportunity comes, as it certainly must, in the near future.

NEW JERSEY MEDICAL HISTORY

Since the last Annual Meeting, a number of members have been discussing the desirability of publishing a "History of Medicine in New Jersey", and we are able now to report that definite steps have been taken toward accomplishment of that purpose. The Medical Society of New Jersey is the oldest of the

state medical societies; possibly the oldest medical society of any sort on this continent. Throughout its 164 years of existence it has maintained a reputation for leadership in the advancement of medical science, promotion of medical organization work, and development of public education in health matters. There can be no doubt that a comprehensive history of medical affairs in this territory, commencing with conditions that existed before the first white settlers arrived on Jersey soil and coming up to the present day, would be interesting to the people of the state and constitute a creditable monument to the medical profession. No such history is now available. The facts are widely scattered through general, as well as professional, literature and state records, and it would seem a worthy task to gather this material for publication in book form.

Constituting themselves a special committee to perform this task, Drs. J. Bennett Morrison, George H. Lathrope and the Executive Secretary drafted an outline plan for such a history, secured contributions to a guarantee fund that would enable them to employ a competent agent to search for material and prepare the manuscript, and have now engaged such a worker, in the person of Miss Helen B. Calhoun, of Weehawken, a graduate of Barnard College, and a writer of recognized

ability. The fact is recognized that there is a lot of work involved in developing these plans and it is expected that approximately 2 years of time will be required to accomplish the feat.

This is just a notice to you that such a history is in process of construction, and that you may await its completion with confidence and with intent to purchase a copy when it shall be ready for distribution.

ATTRACTIVE ADVERTISING

Our attention has recently been directed quite forcibly to the value of advertising matter that carries an attractive appearance. In the December and January issues of the Journal, Lilly and Company had a two-page ad printed in colors. We were somewhat surprised by receipt of an unusual number of comments upon the excellence of those particular journals. Trying to analyze the situation, we secured a variety of responses, mostly commending some special article, and one surprising answer; i. e. "my attention was first attracted by the colored ad insert, and then I read the Journal".

That was an enlightening explanation and shows the journal value of good and attractive advertising matter.

In Memoriam

PRATT, C. Howard, 411 East Fifth Street, Plainfield, New Jersey, died suddenly, of a heart attack, at the age of 46, on January 3, 1930.

A native of Minneapolis, most of Dr. Pratt's life had been spent in New Jersey. He was the son of a Baptist minister, Rev. Woodbury Pratt. His father and mother died within 6 weeks of each other in 1916.

Being graduated from the Passaic High School in 1902 he received his higher education at Columbia University and in 1906 was graduated from the College of Physicians and Surgeons. His hospital training was received in Philadelphia.

Dr. Pratt came to Plainfield in 1911 and began practice. During the World War he was in the United States Medical Corps. He was a member of numerous medical and fraternal organizations, among them the American Medical Association, Union County Medical Society, Anchor Lodge, F. and A. M., Jerusalem Chapter, R. A. M., Trinity Commandery of Knights Templar, the Leavenworth, Kan., Shriners, Jr. O. U. A. M. and Knights of the Golden Eagle.

In 1910 Dr. Pratt married Miss Mabel B. Weder, a graduate nurse, who died a few months ago.

Special Article

MEDICAL SOCIETY-RUTGERS LECTURE COURSES

EARL REED SILVERS,

Director of Public Information, Rutgers University
New Brunswick, N. J.

Detailed arrangements have been completed for the 2 postgraduate courses open to all physicians of the state, to be held in April and May under the joint auspices of the Medical Society of New Jersey and the University Extension Division of Rutgers University. The Educational Committee of the Society, of which Dr. Samuel A. Cosgrove, of Jersey City, is chairman, has succeeded in securing as lecturers and instructors prominent medical men all of whom are recognized authorities in their special fields. This carefully selected teaching staff should give added assurance of success of the plan which has already received much favorable comment from doctors in all parts of the state.

These 2 courses, one in General Medicine and one in Traumatic Surgery, will be available to any county medical society which arranges to organize classes in one or both subjects with a minimum group of 25 members for each course. This enrollment requirement has been found necessary because of the high standing of the members of the lecture staff who cannot be expected to take time from their professional duties to appear before a small group of students.

The class periods will be approximately 2 hours in duration and will be held in the afternoon or evening according to the preference of each local group. It is planned to hold meetings in local hospitals, where such are available, or at places most convenient to the individual groups.

All details of instruction have been arranged by the Educational Committee of the State Society. The business details of the courses, including publicity, organization of classes, collection of fees and other routine matters, will be handled by the Rutgers Extension Division which plans to send representatives to all county societies in the near future to suggest methods of organization and present complete information about the plan.

It is expected that the larger county medical societies will have no difficulty in organiz-

ing groups within their own membership; but suggestion has been made that in the smaller counties 2 or more societies organize a joint group which may meet at some central location accessible to all.

The members of the Educational Committee, consisting of Dr. Cosgrove, chairman; Dr. Alex Macalister, of Camden; Dr. Royce Paddock, of Newark; Dr. H. H. Satchwell, of Irvington; Dr. H. H. Anderson, of Burlington; Dr. E. G. Waters, of Jersey City; with Drs. J. B. Morrison, Andrew F. McBride and Henry O. Reik as ex-officio members, have given generously of their time and labor to arrange a program which will have wide appeal among the doctors of New Jersey.

It has been decided to have 2 groups of lecturers, 1 in the northern part of the State and 1 in South Jersey. In the southern group, the teaching staff has been selected from the faculty of the University of Pennsylvania School of Medicine and the University of Pennsylvania Graduate School of Medicine. The lecturers for the northern section include members of the faculty of the University and Bellevue Hospital Medical College and the Cornell University Medical College.

In each section the curriculum will be identical. There will be 8 lectures on General Medicine and 8 upon Traumatic Surgery, to be given weekly during April and May. The registration fee has been placed at \$30 per person per course, and will be used for the payment of lecturers and other expenses required in the operation of the classes.

THE SUBJECTS

The subjects to be considered have been announced as follows by the Educational Committee:

GENERAL MEDICINE

Diseases of the Blood—(1 lecture).

Pneumonia—(1 lecture).

Cardiac Diseases—(2 lectures).

Renal Diseases—(2 lectures).

Recent Advances in Therapy—(2 lectures).

TRAUMATIC SURGERY

- (1) Treatment of Minor Injuries.
- (2) Infected Wounds, Especially of the Hands.
- (3) Common fractures.
- (4) Head Injuries.
- (5) Internal Injuries.
- (6) Joint and Tendon Injuries.
- (7) Osteomyelitis.
- (8) Burns and Asphyxiation.

The lectures, it is understood, will be illustrated with charts and lantern slides where a lantern is available; and each lecturer in the North Jersey group, and probably in South Jersey, will distribute a work-up routine covering diagnosis and treatment of the diseases covered in the lectures.

LECTURERS

In each group, North Jersey and South Jersey, enough lecturers in each subject will be secured to insure against the incapacity of any lecturer assigned for a particular lecture. The tentative staff of instruction has been announced as follows:

NORTH JERSEY—MEDICINE

Diseases of the Blood. Joseph Connery, M.D., Assistant Professor of Clinical Pathology, New York University; Assistant Visiting Physician, Third Medical Division, Bellevue Hospital.

Norman Joliff, M.D., Instructor in Medicine, University and Bellevue Hospital Medical College; Resident Physician, Third Medical Division, Bellevue Hospital.

Pneumonia. Milton B. Rosenbluth, M.D., Assistant Professor of Medicine, University and Bellevue Hospital Medical College; Assistant Visiting Physician, Bellevue Hospital.

Moe Block, M.D., Resident Physician, Third Medical Division, Bellevue Hospital.

Cardiac Diseases. Arthur De Graff, M.D., Associate Professor of Therapeutics, University and Bellevue Hospital Medical College; Adjunct Visiting Physician, Third Medical Division, Bellevue Hospital; Visiting Physician, Adult Cardiac Clinic, Bellevue Hospital.

Clarence E. LaChapelle, M.D., Instructor in Medicine and Pathology, University and Bellevue Hospital Medical College.

Renal Diseases. William Goldring, M.D., Instructor in Medicine, University and Bellevue Hospital Medical College; Chief of Metabolism Clinic, Bellevue Hospital Medical College; Instructor in Medicine.

Irving Graef, M.D., Research Fellow, Third Medical Division, Bellevue Hospital.

Recent Advances in Drug Therapy. Harry Gold, M.D., Assistant Professor of Pharmacology, Cornell University Medical College.

Theodore Koopany, M.D., Research Associate, Department of Pharmacology, Cornell University Medical College.

NORTH JERSEY—TRAUMATIC SURGERY

Minor Injuries and Osteomyelitis. John E. Sutton, Jr., M.D.

Infected Wounds and Internal Injuries. William Bradley Coley, M.D., F.A.C.S.

Common Fractures, Joint and Tendon Injuries. Paul Cushman Colonna, M.D., F.A.C.S., Clinical Professor of Orthopedic Surgery, University and Bellevue Hospital Medical College.

Head Injuries, Burns and Asphyxiation. Fenwick Beekman, M.D., F.A.C.S.

SOUTH JERSEY—MEDICINE

Diseases of the Blood. Thomas FitzHugh, Jr., M.D., Philadelphia.

Pneumonia. J. A. Kolmer, M.D., Professor of Bacteriology and Pathology, University of Pennsylvania Graduate School of Medicine.

Cardiac Diseases. J. E. Talley, M.D., Professor of Cardiology, University of Pennsylvania Graduate School of Medicine, and W. D. Stroud, M.D., Associate Professor of Cardiology, University of Pennsylvania Graduate School of Medicine.

Renal Diseases. George M. Piersol, M.D., Professor of Medicine, University of Pennsylvania Graduate School of Medicine, Philadelphia.

SOUTH JERSEY—TRAUMATIC SURGERY

Minor Injuries, and Infected Wounds. W. E. Lee, M.D., Professor of Surgery, University of Pennsylvania Graduate School of Medicine.

Common Fractures. Edward T. Crossan, M.D., Associate in Surgery, University of Pennsylvania School of Medicine, Philadelphia.

Head Injuries. F. C. Grant, M.D., Philadelphia.

Internal Injuries. J. B. Carnett, M.D., Professor of Surgery, University of Pennsylvania Graduate School of Medicine.

Joint and Tendon Injuries. DeF. P. Willard, M.D., Professor of Orthopedics, University of Pennsylvania Graduate School of Medicine.

Dean Meeker, of the University of Pennsylvania Graduate School of Medicine, and Dr. John Wyckoff, of Bellevue Hospital, are kindly acting as consultants to the committee.

With such an efficient staff of instructors and lecturers, there is every reason to suppose

that the plan of extension courses sponsored by the State Medical Society will meet with great success. Professor N. C. Miller, Director of the Rutgers University Extension Division, has announced that a folder descriptive of both courses will be ready soon and will be mailed to the President and Secretary of each County Medical Society. Others interested may secure copies by addressing him at Rutgers University, New Brunswick, N. J.

Collateral Medical Reading

WHAT SHOULD CHILDREN TELL PARENTS?

By E. B. White, in the
Lion's Mouth, Harper's Magazine, December, 1929.

(We have heard and read so much about what parents, teachers, or physicians should tell children, that it is refreshing to receive some suggestions relating to an opposite point of view; and as these are presented in such a delightful manner by one of the leading humorists of the day, we are pleased to reproduce Mr. White's article, in lieu of the more serious type of work usually printed in this department of the Journal. Incidentally, if you are amused by White's style, we recommend reading his new book—"Is Sex Necessary?"—Editor.)

So many children have come to me and said, "What shall I tell my parents about sex?" My answer is always the same, "Tell them the truth". If the subject is approached in a tactful way, it should be no more embarrassing to teach a parent about sex than to teach him about personal pronouns. And it should be less discouraging.

I have talked with hundreds of children about the problem of educating their parents along sex lines. So many of them have told me that they honestly tried to give their elders the benefit of their experience in life, but that the parents usually grew flushed and red and would reply, "Nice people don't talk about such things". It is true that a great gap exists between generations. The fact that children are embarrassed to have their parents along when they are attending certain movies or plays is indicative of how hard it is to overcome the old fear of allowing one's elders to learn anything. A child never knows at

what point in a play his uninformed old father will start to giggle. It is hard for children to break through and really come in touch with their elders. "Nice people don't talk about such things!" is the defense which old people put up against life itself when they feel it crowding in all around their heads.

Parents hesitate to discuss things calmly and intelligently with their children for 2 reasons: first, they have a kind of dread of learning something they don't want to know, and second, they feel that if they must learn anything at all they should like to be spared the humiliation of learning it from their own offspring. Actually, middle age (and even senescence) is marked by a great curiosity about life. There is a feeling that life is slipping away quickly, and that it would be terrible to have the end come before everything in life has been revealed. The beauty of life, always apparent, implies a mystery which is disturbing right up to the bitter end. The spectacle of old men wistfully attending sex lectures (as they frequently do) suggests that the strong suspicion exists in them that somewhere they will hear the magic word by which human affairs will become clarified, somewhere they will glimpse the ultimate ecstasy. Children who allow their fathers and mothers, to whom they owe their very existence, to go on wondering about sex are derelicts to duty.

If young folks lack the tact or intelligence requisite to enlighten their parents the task should be entrusted to someone else. Yet it is hard to say to whom. A child should think twice before sending his father around to the public school to secure sex information from his teacher. Women teachers, to borrow a phrase, are apt to be "emotionally illiterate". Many teachers have had no sex life and are just waiting for somebody like your father to show up.

It is of the utmost importance in imparting facts to one's parents that it be done in such a way as not to engender fear or anxiety. The phraseology should be chosen carefully, and efforts should be made to explain everything clearly but without the use of words which have a tendency to make old people nervous. The word "erotic" is such a word. When it is necessary to speak of Man's erotic tendencies, it is best to substitute another word. In the first place, an overwhelming majority of parents do not know the exact meaning of the word

"erotic", and to know an inexact meaning is worse than nothing. Many are apt to confuse it vaguely with "exotic". I have known parents to go through whole books by authors like Havelock Ellis without understanding a single paragraph because they thought Man's "eroticism" referred to his desire to be in some foreign place like Spain. Those parents that actually do detect the difference between the sound of the words will immediately become nervous, inattentive, and dispirited. They will make some excuse to leave the room and will wander out, probably to the ice-box to get themselves a cold snack, which they will eat while in a sulky frame of mind. Later, they will look up the word in the dictionary but will forget it by the time they hear it again in conversation or read it in print.

Just what to tell parents is, of course, a vital question, not to be answered dogmatically. Before a child can conscientiously approach such subjects as pedestalism, the recessive knee, Begonia-ism, frigidity in men, birth control, sublimation, and the swastika fixation, he must clear the boards. The simple phases of sex should be imparted in a direct manner; it is better to explain things in a matter-of-fact way, than resort to such cloudy analogies as birds and flowers.

Strange to say, the habits of birds and flowers have done as little to clarify the human scene as almost any other two manifestations in nature. Further, there is always the danger, in setting up plant or animal life as an example, that one's parents will place a literal interpretation on things.

I am thinking particularly of the case—which all sociologic students know about—of Nina Sembrich, the 15-year-old high-school girl who attempted to impart knowledge to her father by telling him about bees. (Nina's mother was dead or she would have told her too.) She traced, in rather minute detail, the renaissance of earth in spring, the blossoming of the trees, the activity of the bees and their function in distributing the pollen, the fertilization of the seed and its growth during the warm languorous summer days, finally the fruition and harvest.

It was a beautiful story, redolent of orchards and many hillsides, instinct with life—a story that had a soporific effect on Mr. Sembrich, lulling him as the buzz of a bee lulls one in a hot daisy field. The upshot of it was that he somehow got the idea that to have babies you had to keep bees.

He bought several hives, installing them

in the little sitting room on the second floor, where Mrs. Sembrich had kept her sewing machine when she was alive. The acquisition of the apiary further complicated matters for Mr. Sembrich by reason of the fact that bees themselves enjoy a rather extraordinary sexual scheme. Observed by a slightly nervous person who is trying to profit by a simple analogy—as Mr. Sembrich was—bees are capable of causing the utmost confusion.

If you will recall what you know about bees, you will readily understand what I mean. In a colony of bees certain individuals have no sex whatsoever, these are the "workers". The male bees are "drones". The queen (or "mother") bee develops her sexual character only after being arbitrarily chosen for the purpose, walled up, and fattened on special food.

Mr. Sembrich marveled at these things.

Basing his hopes entirely on what he had seen, he made his first overt act, which was to give up his business, on the assumption that to be endowed with masculine characteristics one had to be a drone. In this, of course, he was justified to some degree; for it is quite true that very busy men rarely are fully equipped for a complete or happy sex life.

Business men commonly find a vicarious gratification for their erotic nature in card index systems. Often, their satiable appetite for life is dissipated in the process of dictating a single sales letter. Only men who devote virtually their entire attention to love ever glimpse its full glory or experience its bewildering intensity. (And they make so little money they might just as well not.)

Mr. Sembrich, therefore, was not without justification in becoming a drone, since life was what he wanted to find out about. But it was when he undertook to fatten up a lady of his acquaintance into a "mother" that he ran into difficulties.

He locked her in the kitchen and plied her with rich desserts. He even urged honey on her—a rather literal expedient even for a man in his mental condition. The lady not only failed to become a mother, but she took sick and died, surrounded by a group of Mr. Sembrich's "workers" whom he had hired to help feed her. With a dead woman in the kitchen and a lot of bees upstairs in the sitting room, the household became unbearable as a place to live in, so Mr. Sembrich fled, still ignorant of the essential knowledge of life.

Another case, not exactly paralleling the

Sembrich affair, is the case of 2 parents who failed to learn something to their advantage because they happened to be at dinner. It happened this way. Charles Updegraff had sent his son, Junior, to spend the summer at a boys' camp.

Now, at Camp Whortleberry (that was the name of the camp) the authorities had adopted what is known as the "pet method" for imparting sex knowledge to the boys. Each boy was given charge of a pet of some kind, and the pets were given carte blanche. Junior Updegraff drew a pair of sunfish. To augment the actual pet study, the boys were also given a series of lectures by the camp director, who knew in a general way what he was talking about.

Thus, when the summer was over the boys' minds were full of a strange assortment of facts and oddments, some of them rather amusing. Young Junior had hardly been home an hour when he thought he would do his old man a good turn by telling him what he knew about sunfish. The Updegraffs were at table.

"Pop", he said, "do you want the low-down on a sunfish?"

Mrs. Updegraff hastily interrupted. "Better wait till after dinner, son", she said.

"What's the matter with right now?" asked Junior. "I was just going to tell Pop about our pet study course. I know a lot of things."

"Wait till we're through eating," said Mrs. Updegraff.

"Why should I? A mouse is an embryo 20 days, a lopsided apple is that way because it's been fertilized only on one side, male animals grow bright colored in the mating season, and so it goes. Sunfish . . ."

"Junior!" said Mrs. Updegraff, sharply, "Not till after dinner. Sunfish can wait!"

"No they can't!" cried Junior, warming up his subject. "The father sunfish makes the nest, then. . ."

"We don't want to hear about it," snapped Junior's mother. "Tell us about your canoe trips."

"I never went on no canoe trips."

"Why not?"

"Always was watching the sunfish."

The matter was dropped, and the meal continued in silence. After dinner Mr. Updegraff, secretly very much interested, hung around in the hope that his son would again open up the subject of sunfish. The boy never did. He was only a child, and children are easily discouraged.

Medical Economics

DOCTOR'S BILLS GET PREFERRED ATTENTION

Robert R. Aurner, A.M., Ph.D.,

Professor, Department of Business Administration, School of Commerce, University of Wisconsin.

(Abstracted from an article in Wisconsin Med. Jour., March, 1929).

In a preceding article (see Journal of August, 1929) Dr. Aurner discussed some reasons for the difficulties encountered in collecting medical accounts. In this one he speaks of methods of collecting used to advantage.

Good collections are based on the following requirements:

Promptness. The effect of promptness on the mind of a patient is that it does not allow the debt to fade from his consciousness or to be covered up by other ideas. If much time passes after treatments without his being reminded of his obligation, he gives correspondingly and proportionately less thought to his delinquency. The same thing is true if later letters in a collection series are staged at too great intervals. Hence collection reminders should appear promptly on dates carefully predetermined.

Regularity. In the typical collection system regularity requires that some form of collection effort be made on each of the dates specified in the plan. To be regular in sending notifications is to reinforce in the delinquent's mind the power of habit. Just as a man expects to be billed each month for his groceries, so, as a patient, he expects to be billed at regular times for the service of his doctor. To see that billing is regular, not spasmodic, is to make use of the helpful force of habit.

Systematic Follow-Up. Systematic follow-up of a debtor implies a well-graded series of collection notices graduated through stages of ever increasing pressure up to insistence and urgency. A patient grows to have the utmost respect for a doctor who pays systematic attention to his collections. It may be said without fear of contradiction that no patient objects to being reminded of his just obligations, if the reminder is prompt, regular, and courteously systematic.

We have thus far spoken of the general object of all collection procedure. When we narrow the discussion to the medical field,

it will be seen that the special object of the collection follow-up system is to get the patient to give *preferential* attention to his doctor's bill, instead of preferring all other bills to it. The aim is to collect the money within the least possible time and at the lowest expense without alienating the patient or losing his patronage. The goal may be said to be reached when the money is paid and the patient's continued good-will is definitely determined.

Certain axioms may well be kept in mind. Establish a definite credit arrangement with the patient. Maintain prompt and regular billings. Do not allow the patient to forget his obligation. Always treat him with fairness and courtesy. As has been suggested in previous paragraphs, send out a series of reminders and letters, each of which will be more urgent, proportionately, than its predecessor. Let each letter carry the tone of fairness and courtesy. Let the tendency be always to build up the patient's pride in himself and his integrity. Since the collector and the lawyer are more expensive, it is worth while to put some effort on the development of such a series of collection letters.

RE-SALE OF THE GREATEST IMPORTANCE

It is hardly possible to over-emphasize the importance of re-sale in collecting the medical account. We have seen that the further the patient is allowed to get away from his illness, his treatment, and his consequent recovery, the harder it is to persuade him to pay his bill because he has forgotten the benefits which accrued to him. In other words, the difficulty in collecting is in direct proportion to the length of time that has elapsed since the patient was treated. Re-sale is that process by which is renewed and reestablished in the patient's mind the true value of the medical service he received when he was ill.

Success in re-sale is harder to achieve when the commodity dealt with is intangible. It happens that under most circumstances the doctor's service is an intangible commodity, often hard to dramatize, hard to represent in concrete terms. Contrast the situation with the selling of commodities. The man who walks into a clothing store and buys a hat and overcoat, and a pair of shoes, has something to put on his head, on his back, and on his feet. The man who sits behind the steering wheel of a new car has something on which to place his hands with an instinctive sense of possession. The man who agrees to the placing of a radio in his home on trial has a handsome cabinet to

look at and a wide variety of sounds to listen to. Even the brightly enameled washing machine, though it means work, has something about it that may be construed as attractive.

On the other hand, there is nothing attractive about illness, nothing pleasant to remember after it is over, and once the patient has recovered it is only with the greatest difficulty that he can recall the exact benefits. When his health is impaired, when he is suffering, when his life is in danger, at these times he would willingly sign over his worldly wealth; for at the moment the sense of the doctor's benefit is strong within him. As this sense of benefit fades away upon his recovery, it must be rebuilt in his mind.

The post-dated check seems in general to be a serviceable method of insuring the payment of doctor's bills. From one point of view the acceptance of post-dated checks gives the doctor a new leverage because it throws the patient into a renewed mental attitude of live obligation. Considerable success seems to have attended the use of post-dated checks, usually not more than 5% of the checks coming back marked N. S. F. Most of these are straightened out within a reasonable time and funds are deposited to cover. One clinic reports that it has accepted post-dated checks as far as five months ahead with a percentage of loss almost nil.

Like all others who extend credit, doctors are frequently faced with inability to keep track of the whereabouts of some debtors. For patients who are likely to move rapidly, it is wise to get the name and address of the nearest relatives to be used later if necessary as an "anchor". To check up on changed addresses, an effective device is to send a letter addressed:

Present Resident,
2522 Blank Street,
Milwaukee, Wisconsin.

The letter inside may read something as follows:

It will be sincerely appreciated if you will tell us where Mr. A. L. Blank, formerly a resident at the above address, has gone.

To a letter of this kind, helpful replies are usually forthcoming.

Available, of course, are other methods both gentle and drastic to go about getting money from a patient. It may be said emphatically, however, that no doctor will gain very much by the use of harsh measures. He would do better to write the accounts off his books and retain his community

reputation rather than risk the ill-will which might otherwise be created. One clinic manager who has established a record of 89.78% collections of one year's outstanding accounts (a creditable record), remarked to me some time ago that the longer he is in the business the gentler his collection methods become. He finds it pays.

I do not mean to suggest that in the last analysis the doctor must admit himself helpless in the face of long outstanding accounts, or vulnerable to the attack of the unscrupulous patient. What I wish to point out is that a steadily increasing cumulative pressure can be brought to bear on the patient; not a long and soothing lull, followed by a harsh and violent collection thunder-clap.

Esthetics

THE QUESTION STILL AN OPEN ONE

(Reprinted from *Kalends*, Williams and Wilkins Co., November, 1929).

It is related of Darwin, honest thinker that he was, that upon one occasion, when his researches seemed to end at a solid wall, he exclaimed, "This must be the true explanation, for I can find no other." Then he immediately expressed a private opinion of himself in rather harsh terms, and resumed his search for truth. Would that more of us could be like unto a Darwin.

Is there anything intrinsically preposterous about belief in "future life"? What solid reason, aside from lack of imagination, is against it? The camel, if it could speak, would voice doubt of life among the icebergs; and the polar bear surely would shake its head about life in the desert. Were there no fish, men assuredly would argue about the possibility of life under water. And so many moderns who wish to appear clever, and yet avoid the labor of thinking, smile when "future life" is mentioned. "Death ends all" is to them a sufficient answer, or so they assert. It is the easiest "answer" to one of the most difficult and seemingly unanswerable of questions; one that ranges from the dawn of sentience until now, and one that is universal. Unanswerable? Perhaps. It must not be forgotten that men, brilliant men, thought the sky a bowl until the telescope was designed.

When the chemist transforms a solid into a liquid, and a liquid into gas, he dare not assert that he has destroyed matter, or that

the gas will never again be resolved into a liquid and thence to a solid. The only positive assertion that the chemist can make is that he effected a transformation. If life, in a biologic sense, is everlasting (and who can deny that it is not), then a "future life" is possible, although probably not in theologic interpretations. But do not be too harsh upon all theologians, for it must be conceded that many of them have enriched the world with visions of wondrous beauty and endowed it with ideals of worth untold.

There are those with a blueprint mind, and a thumbprint personality, who assert that mere speculation about a "future life" is inane and profitless—a chasing of the will-o'-the-wisp of the forever unknowable. Possibly true. But might not the same be said of astronomy? And yet every year that science reveals "other worlds than ours".

It is the quest of truth that has lifted man above the level of the beast. It should never be forgotten that the demonstrable truths of logic are no less valuable than those truths demonstrable by scientific experimentation. That a "future life" is possible, no intelligent man doubts; that it is probable, some very able men concede.

Who knows?

In Lighter Vein

Life's Darkest Moment

Barbara (whose first tooth has just dropped out)—"Mummy, mummy, quick! I'm coming to pieces!"—*Passing Show* (London).

Third Degree.

Overheard as a somewhat flustered young thing descended from the sedan: "Say, Mayme, I see you been on the rumple seat."—*Boston Herald*.

Easy to Please.

Nell—"Mamie, you look downhearted."
Mamie—"Yes, I wish I were dead or married. Preferably the latter."—*Detroit News*.

Solid Ivory.

"Ouch! I bumped my crazy bone!"
"Oh, well, comb your hair right and the bump won't show."—*Royal Arcanum Bulletin*.

Tag! He Was It

Physicians at Community Hospital yesterday removed part of a knife blade from the spinal cord of William Clark, negro. Clark told hospital authorities he was stabbed by his wife while both were in playful moods.—*Wilmington* (N. C.) *Star*.

Our dictionary is funny. It says the dumb can't talk.—*San Francisco Chronicle*.

Observations from the Lighthouse

REDUCTION OF OBSTETRIC MORTALITY

One of the practical, every-day, distressing problems most urgently today demanding consideration by the medical profession is that of the high mortality of childbirth. Medical societies are discussing various aspects of the problems, medical literature has poured forth a veritable flood of articles during the past 5 years, all discussing the curious fact that modern medicine—which has made such remarkable mortality reductions in disease conditions—leaves modern woman as badly off, if not worse, than her sister of olden days in respect to a function that is physiologic and should be as safe as other normal life procedures. It is a sad reflection upon a learned profession, that the mortality rate in obstetric practice controlled by physicians seems to be no better than that in the hands of midwives. The fault has been variously attributed to carelessness or ignorance on the part of physicians, to lack of or imperfect training in medical schools, to changing conditions in civilization that render many women unfit to stand the strain of pregnancy, in fact, to most anything that tends to excuse even if it does not explain the serious situation confronting the prospective mother and the medical profession.

Asking himself how obstetric mortality may be reduced, Greer Baughman (*Virginia Med. Monthly*, 56:382, Sept. 1929) answers as follows:

"Certainly one of the answers to the high death rate from eclampsia is prenatal care. Prenatal care will reduce the incidence of convulsions so greatly that deaths from that cause will be as uncommon as deaths from typhoid.

The problem of reducing sepsis is more complicated.

We believe that we have succeeded in reducing the deaths from sepsis in our clinic much below that of the state at large because we have given these women a careful physical examination, a careful pelvimetry, have watched the growth of their babies and have planned a long time ahead what method of delivery is most advisable, and have carried out our plans without unnecessary vaginal examinations. We have striven for sterile deliveries. In this we have fallen far short of the ideal, but we are constantly striving.

If we can induce the doctors of the city and of the state to regard prenatal care as of sufficient importance in the prevention of puerperal deaths, the mortality will be reduced much lower than in 1927. In addition, if we can succeed in having every woman in Virginia see a doctor at least once during her pregnancy, puerperal deaths will be accidents."

ANALYSIS OF 801 CASES TOXEMIA OF PREGNANCY

From the Obstetric Department of Johns Hopkins Hospital comes a very timely report on the toxemias of pregnancy, with deductions drawn from a study of a large series of patients. From the report by H. J. Stander (*New England Jour. Med.* 201:458, Sept. 5, 1929) we abstract the following conclusions:

(1) Vomiting of pregnancy responds quite satisfactorily to conservative treatment, which embodies isolation of the patient, an initial period of starvation, fluids by mouth and frequent but

small meals. Sometimes it becomes necessary to administer intravenous therapy, but only rarely is it necessary to terminate the pregnancy.

(2) Low reserve kidney is best treated by rest in bed and dietary measures. This type of toxemia is never an alarming complication.

(3) Nephritis should always be regarded as a very serious complication of pregnancy. Termination of pregnancy and even sterilization are often necessary. The milder forms respond to rest in bed, a low-protein diet, and fluids.

(4) Preëclampsia is to be viewed as the forerunner of eclampsia, and as such is a serious complication. Conservative treatment in most cases, and radical interference under local or spinal anesthesia in exceptional cases seem to give the best results.

(5) Eclampsia is the most serious of the toxemias of pregnancy, and its severity may often be gauged by the patient's blood chemistry, especially the uric acid contents and the CO₂ combining power of the serum, as well as by the clinical symptoms. The best treatment seems to be conservative, together with radical intervention under spinal or local anesthesia in the exceptional case in which the patient does not respond to the medical therapy. One should always be on the lookout for a rapidly developing acidosis which should be combated by means of such anti-acidosis treatment as insulin and glucose or alkali.

(6) Prenatal care is of the utmost importance both in preventing some of the toxemias and in enabling us to pick up the patient suffering from a toxemia and needing immediate attention. Prenatal care is of special value in nephritis, pre-eclampsia, and eclampsia.

TREATMENT OF PUERPERAL SEPSIS

In a symposium before the Massachusetts Medical Society, Section on Obstetrics, Charles J. Kickham (*New England Jour. Med.*, 201:451, Sept. 5, 1929) concluded his paper on this subject in these words:

"It is the general agreement that there is no specific remedy. That chemotherapy in the form of arsenical salts, silver salts, mercurial salts or dyes is of little general value, though in a given case they should be considered. That sera and vaccines are still in an experimental stage and without definite value, though always worthy of trial in a specific case. That blood transfusions or injections are of real value but must be given early and often. That with our present day knowledge and judging by results attained in various clinics main dependence must be on general tonic treatment by sunlight, good food and careful nursing, with specific remedies is an adjunct in each individual case. That preventive treatment is the ideal and each obstetrician should use every prophylactic measure possible from beginning to end of the pregnant period. While it is humiliating to acknowledge it, we must face the fact and that is in cases of puerperal sepsis our most modern active treatment is far from efficient. But it is with confidence that we face the future for it seems highly probable that with the intensive study being made of this problem by the best minds in our profession, and with the co-operative interest of every one doing any maternity work, we will be able to at least reduce the incidence of puerperal sepsis and thus the mortality."

School Health Department

GENERAL AIM OF THE STATE

ALLEN G. IRELAND, M.D.,

Director of Physical and Health Education,
State Department of Public Instruction,
Trenton, N. J.

The primary purpose of the state is to establish and further a health and safety program for the public schools from which the pupil will derive an increased capacity for education, freedom from handicaps to growth and development, the habits and attitudes that constitute safe and healthful living, a knowledge of the safe and hygienic conduct of life and the ideals of health and safety that make for rich and worthy living for the family and community groups as well as for self.

OBJECTIVES

The State Department has established as guides for its work, the following objectives:

(1) To establish a standard program, approximating the ideal, that will serve as a model or guide for the construction or expansion and the operation of a health and safety program in all types of public school system.

(2) To establish and work for adoption of an administrative policy that will insure complete integration of the health and safety program in all its aspects—aims, activities, personnel, supervision—with the general school organization already established for the traditional curriculum.

(3) To keep school administrators and school health workers informed of new developments in health and safety education by clearing through the state department office, excerpts, news items and reports gathered from current professional literature, research studies and convention reports.

(4) To extend upon request such advisory service of a professional nature as the Division of Physical and Health Education is able to render. The method will vary with circumstances. It may be a survey or a less comprehensive study; a visitation of schools followed by a conference; a teachers' meeting; or a meeting with the health staff.

(5) To bring about in some form the organization of school health personnel for the furtherance of professional interests.

(6) To establish standards in professional qualifications of the school health personnel.

(7) To provide opportunities whereby the school health personnel may receive through extension or summer courses, institutes, etc., further professional training in their respective fields.

(8) To give such publicity to the program and its results as will further progress through increased understanding and coöperation on the part of the home and the community.

(9) To assist in giving prospective teachers, through teacher training institutions, a better understanding of the necessary skill for their part in the operation of the health and safety program.

AIMS OF A SCHOOL HEALTH PROGRAM

The following aims have been announced for the New Jersey School Health Program:

(1) To apply the principles of safe and healthful living to the educative or schooling process.

(2) To protect the physical and mental health of the pupil while at school.

(3) To establish measures for determining the health status of pupils, particularly with regard to deviations from the normal, whether physical or psychologic.

(4) To promote, with coöperation of the home, measures for the removal or correction of handicapping physical and mental defects or health conditions.

(5) To establish in the school preventive measures that will lessen the incidence of communicable disease.

(6) To provide for training and instruction of the pupil in the activities and principles of safe and healthful living.

QUALIFICATIONS OF THE SCHOOL NURSE

General. In general, the school nurse should be young but not so immature as to give an impression of youthful uncertainty. Like teachers, the nurse must be on her feet the greater part of the day. She will be required to do considerable traveling in making home visits and in going from school to school. Whether by conveyance or on foot, this type of work is fatiguing. In addition, she must always present an energetic and refreshing appearance in meeting pupils and parents. The young woman, other things being equal, is physically capable of withstanding the strains and of rapid recovery. Moreover, unlike other positions, the experience which goes with age does not apply in school nursing except when the experience was gained in school work.

Attractiveness is always a desirable asset. It is a distinctive quality that more often than not cheers and inspires. It should, however, be a natural rather than a cosmetized quality.

Good health is essential. The school nurse should be an exemplar of the doctrine she represents. The eye should be bright and the skin clear. Posture and other evidences of physical fitness should be viewed from the angle of impressiveness. Poise and carriage are always effective in teachers.

Personality is an indefinable quality. Perhaps it is best estimated by consideration of all general qualifications mentioned herein. Judgment of its presence will have to be left to the interviewers. The school nurse should have a love for children and a sympathetic understanding of their interests and troubles, their moods and emotions. She should exhibit enthusiasm in working for and with children. A positive show of self-confidence that does not smack of boastfulness is a good sign. The young woman who is overly shy or given to making excuses for herself should be avoided.

An important quality but one that baffles estimation is the ability to get along with other women. A good school nurse must be, what may be described for want of a better term, a woman's woman. The significance is obvious for coöperation among the staff is the keynote of success in school health administration. The appli-

cant should exhibit an understanding of her relation to the superintendent of schools, the school physician and the classroom teacher. She should comprehend the unity of the organization to which she belongs. The school nurse is frequently in situations where tact, courtesy and foresight are essential qualifications. She should be a gentlewoman always. In emergencies or in meeting obstinate people in line of duty, the school nurse who has at her command a gentle spirit, a serene nature and a calm manner, finds success in her efforts.

Academic education. It is strongly urged that high school graduation be established as a standard in academic qualifications for the school nurse. It is the standard for all members of the teaching and administrative staff with whom the nurse must coöperate in carrying out the health program. Equality in this respect makes for acceptance on the part of others and peace of mind and self-respect on the part of the nurse. It is a condition that may reflect on the work of the nurse, for instances are not few where intolerant superiority of the better educated members of the school personnel has caused mental suffering and inefficiency in a sensitive young woman.

Training. Graduation from a hospital training school should be the minimum professional standard. Registration within the state is desirable and is recommended as a requirement. Beyond the minimum training, any preparation that will increase the value of the nurse in school work may be established as a requirement by local school authorities. Usually such advanced training is in the related field of public health nursing for which recognition is made in the form of a diploma or certificate. Summer and extension courses are available for nurses working in or near large cities.

Additional preparation after employment should be encouraged. This may take the form of professional reading if extension courses are not available. In general, the privilege of attending summer school should be extended to nurses on the same basis as to teachers. There is no reason why nurses should not be required to show evidence of professional growth while in service. In this connection, it may be well to bear in mind that the regular hospital training received by the nurse is not, except in a very general way, parallel to the type of work expected of her in the schools. Advanced study then could well be in the field of general education. The nurse will be better fitted for working with children and teachers if she has a background of psychology; general, child, and educational; of principles and methods of education, and of sociology.

Experience. No general standards are suggested under this heading except to point out that experience in either the school or public health field is obviously valuable while private duty nursing is of little moment except as an opportunity for the nurse to measure her attainments and to acquire confidence and assurance.

Current Events

TRISTATE MEDICAL CONFERENCE

The regular autumnal session of the Tristate Medical Conference was held at Hotel Chelsea, Atlantic City, December 7, 1929, Dr. Andrew F. McBride, President of the Medical Society of New Jersey, presiding. Those in attendance were:

New York: James Newell Vander Veer, Albany; William H. Ross, Brentwood, L. I.; Frank Overton, New York City; Joseph S. Lawrence, Albany; James E. Sadlier, Poughkeepsie.

Pennsylvania: William T. Sharpless, West Chester; Ross Patterson, Philadelphia; Walter F. Donaldson, Pittsburgh; Frank C. Hammond, Philadelphia.

New Jersey: Andrew F. McBride, Paterson; George N. J. Sommer, Trenton; J. B. Morrison, Newark; Ephraim R. Mulford, Burlington; Philip Marvel, Atlantic City; E. C. Taneyhill, Philadelphia; Henry O. Reik, Atlantic City.

Dr. McBride: I wish to acknowledge the privilege and honor I feel at presiding over this assembly. I have heard a great deal about the Tristate Conference in the past and I think it has done a great deal of good for the profession in these 3 states. We are all striving for the same ends and I feel sure that these conferences will help us to accomplish a great deal.

As the first speaker listed on the program has been unavoidably belated, we will call upon Dr. Reik for his paper.

Profitable Results Accruing from Four Years of the Tristate Conference

Henry O. Reik, M.D.,
Atlantic City, New Jersey

With this meeting, we are entering upon the fifth year of the Tristate Medical Conference, 12 previous sessions having been held during the 4 years since November 7, 1925, when the first meeting was convoked in Atlantic City. Under the plan of organization adopted, the personnel of the convention changes slightly each year, but under a modification of the original scheme we have been enabled to absorb these necessary changes and at the same time to retain as many of those passing out of office as might desire to continue in association with the conference. As the majority of those attending this, the thirteenth, conference, was not embraced in the organization meeting, and as it is important that those participating in our deliberations shall have knowledge of what has gone before, it seemed to your Secretary worth-while to restate the aims and objects of the organization, to review, at least by title, the subjects that have been considered at previous meetings, and to attempt to measure the results growing out of 4 years of experience. The 2 first features will not be difficult to present; the third, a deduction of results, will necessarily be limited largely to observations on what has resulted in the territory with which the Secretary is most familiar—that is to say, of the benefits derived by New Jersey—leaving members from New York and Pennsylvania to speak as to whether those states have profited by establishment and development of this conference plan. Out of the entire résumé, it may be possible to determine whether the effort has been worth-while.

The purposes of the Tristate Medical Conference can possibly best be stated by referring to the

minutes of the first meeting, held on November 7, 1925, pursuant to an invitation from the Executive Secretary of the Medical Society of New Jersey. As explained in that record, the said secretary was impelled to suggest an interstate conference for the following reasons: (1) Because he had been advised by the Secretary of his state society, Dr. Morrison, to acquaint himself with the methods being employed in the neighboring states of New York and Pennsylvania to solve professional problems and to conduct public education in medical matters; (2) because experience with legislative matters affecting the medical profession had disclosed the fact that there were a number of questions inviting harmonious action by the 3 neighboring state medical societies and which, in consequence, must be of interest to the officers of those societies; (3) because a dispute that had arisen between the Boards of Medical Examination and Licensure of Pennsylvania and New Jersey gave birth to the idea that such friction might possibly be avoided by effecting closer relationship between the medical societies of these 3 states. It appeared somewhat ridiculous that there should be such wide differences of the medical laws of these 3 states which are so closely linked together in other respects, and that a physician of the highest standing on one side of the Hudson or the Delaware River should be an outlawed practitioner on the opposite bank of either river; when either stream could be crossed in a few jumps and both had to be crossed daily by some members of the profession in the natural course of their work. New legislation was constantly being enacted in all 3 states, concerning the right to practice medicine, the control of infectious diseases that recognize no geographic boundaries, and other matters of interest to all the professional men of the district; and yet, no effort was being made to secure uniformity of legislation or to harmonize existing laws. Furthermore, all 3 state societies were more or less actively engaged in promulgating disease prevention programs, in directing public health movements, and in the consideration of intra-professional scientific and economic problems; and yet, there was little or no effort at correlation of labors or direct exchange of ideas and experiences.

In the business world, coöperation was the watchword of the hour and, imbued with the double hope of learning something about how to perform our own duties and of aiding in reduction of the existing chaos, we discussed with Drs. Hammond and Overton the desirability of bringing about some sort of a conference in which the officers of the 3 state societies should regularly participate. Having received their endorsement to a plan for calling a conference of those officers charged with conduct of the business of the respective state societies, plus the Editors of the 3 Journals and the Secretaries of the State Boards of Examiners, a letter was sent to all the parties thus classified, explaining briefly the object of a meeting to which they were invited. The term *conference* was deliberately chosen as a designation for this organized group, because the primary object was to *confer*, to *consult*, regarding conditions in the states represented, and to take under advisement any suggestions or plans that might develop from consideration of our problems. It was never the intention that this group should definitely decide questions for the medical societies represented, nor in any sense bind those societies to a specific program of action; the members of the conference bringing no such authority from the societies they represented. It was intended that we should come together to discuss questions of

vital import to organized medicine, to consider ways and means of locally dealing with those problems, and possibly to arrive at conclusions which we could report to our respective organizations with a view to effecting harmonious action throughout the territory covered by these 3 societies. It is much to be desired that we shall agree upon definite means of solving our problems and that whenever possible we shall unite in recommending specific action to be taken by all 3 societies simultaneously, but it is recognized that while definite, positive action, universally applicable, is always desirable, there will be times when such action is not practicable. When questions of the last mentioned sort arise, we can at least endeavor to bring about such action as will not seriously conflict and will not be a source of irritation to the physicians practicing in these states.

Since the original date of organization, several changes have been made in the plan of representation. First, it was decided to exclude representatives of the State Boards of Medical Licensure: as individuals, they are all charming men, and as members of the profession, all are interested in some of our important problems, but they are officers of State Boards and not officers of the Medical Societies; and it seemed wiser to limit conference membership to society officers and to *invite* outsiders to attend meetings whenever their presence should be desired. A second change came about when some of those who had been active workers and were deeply interested in the conference lost their membership by becoming *ex-presidents* of their societies. So, it was voted that *ex-presidents* of the state societies should be included in membership of the conference so long as they showed interest in its proceedings and remained active participants. At the present time, then, our conference comprises the following officers of the medical societies of New York, Pennsylvania and New Jersey: *Ex-Presidents* since 1925; *President*; *President-Elect* or *First Vice-President*; *Secretary*; *Executive Secretary*; *Editor of the State Society Journal* (in New York the *Editor-in-Chief* and the *Executive Editor*); and the *Chairman of the Board of Trustees*.

At the commencement of our second year, it was decided that we should hold 3 meetings per annum, approximately as follows: One early in November, because each society has then gotten started upon its active season of work; one in February, because, as a rule, that is about the middle of the term of state legislative bodies and we can confer, if necessary, upon pending legislation; one in May to take account of the year's work. Inasmuch as the first, second and third meetings of the conference fell by chance the first year to New Jersey, New York and Pennsylvania in the order named, we have continued to follow that order in the assignment of meeting places, permitting the officers of each state society to determine the program for meetings held in its territory and expecting the president of each state society to preside over meetings held in his state. That there should be some one to serve as a link between the conferences, to carry on from one session to another, to assist each presiding officer in preparation of his program, and to keep permanent records of proceedings, a Secretary to the conference was duly elected.

Such is the purpose of the conference, the form of organization, and the plan under which its work has been conducted.

Reviewing our records, we have compiled a list of the topics considered at the 12 conferences held during the past 4 years, together with the names

of the authors of papers presented, and references to the volumes and pages in the Journal of the Medical Society of New Jersey where these papers and the attendant discussions have been published in full.

TRISTATE CONFERENCES

Subjects Considered

- (1) Journal Coöperation *Frank C. Hammond*
 Medical Practice Acts *J. B. Morrison*
 Nursing Situation *Joseph S. Lawrence*
 (Report—N. J. Jour., 23:38, 1926)
- (2) Graduate Medical Education *Charles A. Gordon*
 Abolition of Diphtheria *Joseph S. Lawrence*
 Periodic Health Examination *Orrin S. Wightman*
 Group Insurance *J. B. Morrison*
 (Report—N. J. Jour., 23:305, 1926)
- (3) Postgraduate Medical Instruction *George H. Meeker*
 Workmen's Compensation Law *Andrew F. McBride*
 Uniform Medical Practice Laws *Harold Rypins*
 (Report—N. J. Jour., 23:473, 1926)
- (4) Qualifications of Nurses *Nathan B. Van Etten*
 Qualifications of Nurses *Charles S. Pitcher*
 Vaccination against Rabies *Henry O. Reik*
 Opposition to Narcotic Act *Arthur C. Morgan*
 (Report—N. J. Jour., 24:50, 1927)
- (5) Voluntary Health Agencies *Thomas P. Farmer*
 The Nursing Question *Nathan B. Van Etten*
 (Report—N. J. Jour., 24:257 and 315, 1927)
- (6) Public Relations *Frank C. Hammond*
 Antidiphtheria Campaign *Joseph S. Lawrence*
 (Report—N. J. Jour., 24:501 and 545, 1927)
- (7) State Control of Private Hospitals *J. B. Morrison*
 National Radio Broadcasting *Henry O. Reik*
 (Report—N. J. Jour., 24:731, 1927)
- (8) Expert Testimony *Lloyd Paul Stryker*
 (Report—N. J. Jour., 25:280, 1928)
- (9) Administration of Medical Laws *I. D. Metzger*
 (Report—N. J. Jour., 25:546, 1928)
- (10) County Medical Society Opportunities *Joseph S. Lawrence*
 State Journals; Their Peculiar Field *Frank Overton*
 (Report—N. J. Jour., 26:64 and 165, 1929)
- (11) Further Consideration County Society Problems *Henry O. Reik*
 (Report—N. J. Jour., 26:346, 1929)
- (12) What Constitutes an Ideal State Society Journal *Frank C. Hammond*
 (Report—N. J. Jour., 26:645, 1929)

At all of our meetings we have had an expert reporter to take a stenographic record of the proceedings and the report so taken has been edited promptly so that mimeographed copies could be

made and sent at once to all members of the conference. To give you some idea of the size and importance of that record, may we show you what use we have made of it in New Jersey. We published in our Journal only an abstract report of each of the first 3 conferences, before we realized that the papers presented and the work done here would be properly appreciated and become effective in the state only by submitting a full account of the proceedings to every member of the state society. Since then, we have published in the Journal a complete record of our transactions, (sometimes having to divide the report into 2 sections and publish it in consecutive months) and we may say in passing that the decision has been more than justified by the results secured. Looking through back numbers of the Journal, we find that the following amounts of space were given to the successive conferences:

First	2 ½ pages
Second	3 "
Third	6 "
Fourth	14 ½ "
Fifth	15 "
Sixth	15 "
Seventh	12 "
Eighth	18 "
Ninth	12 "
Tenth	15 "
Eleventh	18 ½ "
Twelfth	18 "
Total	149 ½ pages

We exhibit here a collection of these printed pages taken from old Journals and which we intend to have bound in book form when we shall have completed publication of our record for 5 years. At the present moment, this means 149 ½ pages of printed matter, with 1100 words to the page, a total of 174,350 words. Averaging the number of pages per conference and assuming that the record of this fifth year will reach that point, we shall have for the 5 years a record of transactions requiring 167 pages, nearly 200,000 words of printed matter; and that will make a sizeable book. What is of more importance, it will make a book in which we shall have a very thorough consideration of the most important problems that have confronted our state societies during this period of time. We feel quite certain that one of the main reasons why the Medical Society of New Jersey so enthusiastically endorses this Tristate Medical Conference is that every member of the society has been kept informed about our proceedings and has been supplied with an accurate record of the discussions bearing upon these important questions.

RESULTS

Now, what has been the effect of these conferences and to what extent has each state medical society benefited from them? In so far as New Jersey is concerned, we believe that these conferences have been highly beneficial. Perhaps an estimate of results can best be made by referring to each special topic that has been considered and endeavoring to trace the effect of that discussion upon local conditions.

(1) Medical Practice Acts, Uniform Medical Practice Laws, and Administration of Medical Laws, are the titles of 3 of the papers read and discussed. We regret to say that our efforts to settle the dispute between the examining boards of Pennsylvania and New Jersey have not as yet borne fruit. At least twice we have thought a

solution of the trouble had been found, but each time something has happened to throw those boards back into conflict. However, the discussions have not been entirely without effect, and we are probably justified in saying that the officers of the New Jersey State Medical Society are favorably impressed with the main features of the Medical Practice Act of New York and are only awaiting suitable opportunity to seek the enactment of similar legislation in this state.

(2) The Nursing Question, which was discussed at 2 sessions of the conference, is everywhere, not only in these 3 states, still unsettled, and while we have all gained something from the thorough discussion of problems therein concerned, we cannot as yet claim any great benefit to any society.

(3) Abolition of Diphtheria: Taking advantage of what we learned from Dr. Lawrence's 2 papers on this subject, New Jersey inaugurated a Statewide Antidiphtheria Campaign that is progressing very satisfactorily, and we feel that the information gained through this conference enabled us to put on a campaign with less labor, with less cost, and with greater hope of success than we could possibly have done without the previous attainment of such knowledge.

(4) Periodic Health Examinations: This work moves slowly, exasperatingly so, but we profited by the discussion of that subject in that it saved us from waste of effort in directions that had already proved futile and guided us into smoother channels. The exchange of ideas and plans bearing upon this problem was helpful to us, at least.

(5) Workmen's Compensation Law. At the conference upon this question, it appeared that New Jersey had something to give, that this state was well in the lead with a reasonably satisfactory law which was being exceptionally well enforced, and so while we gained nothing particular from that conference, we hope that we contributed something of value to both New York and Pennsylvania.

(6) Voluntary Health Agencies and Public Relations Committees: In this matter we were all working along similar lines but we in New Jersey profited considerably from the free, frank and extensive discussion of these problems by the conference. From such discussions we drew some new ideas as to mode of procedure, and much stimulation from the knowledge gained that we were working along lines endorsed by so large a proportion of the profession. We have a very active state society public relations committee, and now have public relations committees in most of our county societies. We hope to have effected the establishment of a similar committee in every one of our counties before the end of this fiscal year. We have profited largely from the experience of our neighbor states in this matter.

(7) Graduate Medical Education: This has been for New Jersey a much more difficult problem than for either of her neighbors for this state has no medical colleges or medical teaching institutions. However, that excellent paper contributed to the conference by Professor Meeker, and the county experiences reported by Dr. Gordon, have ultimately borne fruit. After several trials at constructing graduate courses that might be carried to our county members, we have finally made a coalition with Rutgers University whereby that institution of learning will conduct university extension courses for which the medical society furnishes the instructors and the hospitals that will serve as teaching centers. The plan is to be inaugurated next month and we believe we have

worked out a feasible plan of providing graduate study, at low cost, to isolated physicians.

(8) Expert Testimony: You will remember that one conference resulted in devising what might be called a model law that we would like to have enacted in the several states. Actual adoption of the law has not yet been attained with us but we have advanced far enough to have the ideal law endorsed by the state medical society and by the state bar association, and though it failed of passage at the last session of our state legislature, it is probably only a question of time when it will be enacted into law. The conference could not pass the law but it did give us something definite and idealistic for which to work.

(9) State Control of Private Hospitals: Discussion of this question disclosed the fact that in all 3 states there existed a parlous state of affairs. Thanks to the consideration given the question by this conference, New Jersey now has a law such as this organization recommended. We have had the good fortune to have at the head of our State Board of Institutions and Agencies an enlightened administrator, and the medical profession and the people of New Jersey owe Commissioner Ellis a debt of gratitude for securing state control of all hospitals. That is one excellent piece of work that resulted directly from the deliberations of this body, which discussed the problem at the instance of Dr. Morrison.

(10) County Societies and Their Opportunities: Two of the most interesting sessions we have held were devoted to consideration of developing the component county medical societies and the effect of our discussions has been quite marked. It stirred up more activity in the county societies of this state than has any other one thing during the past 5 years. Among other things, we have adopted the Pennsylvania custom of holding an annual conference of our county society secretaries and reporters, and the first effect of that has been to stimulate those officials into greater activity. If the conference had done nothing else in these 4 years than to so thoroughly discuss that question and the question of state society journals, it would have proved its inestimable value.

(11) Journals: As we have just referred to the meeting at Pittsburgh, where we discussed "The Ideal State Society Journal", we need only say in addition that we keep Dr. Hammond's paper constantly before us and continue to hope that we shall some day attain to the ideal he set before us. We have already made some changes in our Journal, and with the January issue will introduce others in our effort to measure more closely to his standard.

In conclusion, we would express the belief that through these conferences New Jersey has gained much from the contributions made by New York and Pennsylvania, and we trust that we have contributed something that may have been of value to the medical societies in those states; at any rate, we desire to offer our thanks for the benefits that we have derived through this organization.

DISCUSSION

Dr. William H. Ross (President-Elect of the New York State Medical Association): In discussing the results of the Tristate Conference I am approaching one of those difficult things that I have sometimes been thoughtless enough to undertake. In preparation for it I have read all the records of all of the conferences (including the recent correspondence relating to the New York State Journal of Medicine), from November 7,

1925, to May 25, 1929—all the records, papers, discussions and correspondence. The complete records give me a complete picture.

Generally, if one looks, in any conference, for the settling or closing of any subject while the factors of which it is made are changing, he is likely to be disappointed. If one sees the results, however, just as stepping stones in the evolution of medical relationships due to the developing public character of medicine, the public demand for a health program, and in the light that we as members of a profession owe to the public and to our profession, then I think that we can find a good deal in these conferences.

Some fundamental things have been discussed and some of these have not been and could not be finished because the factors are changing; e. g., the necessary relationship between medicine and health agencies; what constitutes an ideal state journal; and there are some others that could have been discussed—proper management of the income of a society in the sense of true economy, real business management considering expansion, and what further use can be made of a Board of Trustees, postgraduate education, and better organization for better county health. These are developing subjects. There are others that are hardly worth the time because not much can be done about them and what there is does not belong to this unofficial conference.

The work of this conference is similar to a chamber of commerce where private individuals in their private capacity, working as a group develop new things and pass them on to the proper governing body for consideration and conclusion, thus accomplishing results by supplementing the governments of our respective organizations of organized medicine. It is not worth while for this body to do very much to advance certain studies already taken up elsewhere unless more time is given to preparation for discussion than the records of discussions indicate has been done, and while other means exist and other committees are actually at work with large resources. There should not be taken up problems peculiar to one state alone unless they wish a mere consultation.

There are apparently some continuing differences of opinion that ought to be "ironed out" if the conferences are to go on and attain their highest usefulness. One is the publishing of the complete records in the journals, or an abstract of them. If there had not been a complete record, I would not now be discussing these conferences. I am quite interested in the quality of the papers that have been presented and in their practical value. The New York State Society Journal has given only about 2 pages of space to each conference report, while Pennsylvania and New Jersey Journals have given as many as 18 pages.

The conference should get down to fundamental problems as soon as possible and it could well direct its composite mind to the relationship of health organizations of all kinds, on one hand, to medicine on the other. This relationship has not yet been accepted by the mass of medical men as having emerged from the stage of controversy into the stage of coöperation. A good deal of time has been spent on relatively unimportant subjects. Too many subjects have been undertaken. Many men in discussions have been apparently satisfied with the inspiration they received. They said so anyway—whatever that means. One wonders just how much use has been made of their inspiration when they got back home to their own medical societies.

There has been so much rapid progress in medicine that the new knowledge has not yet been

made available generally to those who cannot buy it because we have not assisted the thinking public to organize better means for the practice of public health and prevention of disease. Right here is an opportunity for conference. One wonders if this is not the most fundamental task that we have. Then, there is another like unto it—improvement of the state journals.

If it is true that the purposes of organized medicine are to promote the science and art of medicine, to enlighten the public on the great problems of medicine, the betterment of public health, to provide opportunities for medical education, to diffuse among the people knowledge of the achievements of scientific medicine, and to aid and conserve the public weal by participating in all proper medical civic efforts, then these conferences have not hewed as closely to the line as they should. Favorably constituted as they are of a small number of men who can be supposed to represent the essence of leadership in 3 states, there should be grasped more certainly than there has been the practical ideals of the medical profession, the fundamental principles of practical postgraduate education, the need of understanding the social aspect of modern medicine, medical relationships and betterment of public health, and leave all the other questions which are mainly economic to the various states to settle for themselves. These, gentlemen, are the things that the profession is approaching and sooner or later they will demand major consideration. Some of the subjects that we now spend time on will be settled by other agencies or will in time settle themselves, e. g., expert testimony has been talked of in organized medicine for years and years. I find articles on it 50 years ago in New York State. Its interest is minor compared to those that I have named, and anyway, it's a matter for the Bar Association even more than medicine.

It is blindness not to see that business, industry, and government are wiser than we are in their efforts to establish desirable relationships. We have plenty of leadership but we do not always coöperate that leadership enough to make the results of conference under such leadership of general availability to our own states. Surely these conferences can think out some scheme to do this. If we do not, then we are merely entertaining ourselves.

There is another thing that I may as well get over now. It is not becoming for these conferences to spend a great deal of money. They are unofficial meetings. I served as Trustee of the New York State Society for 3 years, resigning last year to do another piece of work at the direction of the House of Delegates.¹ I am on record as severely criticizing, as a Trustee, the expense of the last conference held in New York. We should not belong to the class that believes in spending other people's money in any other way than we would spend our own and also in a way that could be told the membership. The amount spent by the New York State Society at the conference on February 2, 1929, is not likely to be repeated at the expense of that state society. I find in the records that an effort was made in the beginning to have the cost \$100 or less a year for each meeting. That means \$100 or less a year for each state. That would be considered a proper expenditure, I believe.

Probably it would take more wisdom than I have to work out the apparent situation between the Tristate Conference and the New York State Medical Journal. I wonder if it is true that "practically every other state medical journal has been

criticizing the New York State Journal for its publication of certain ads and its independence in severing its connection with the Coöperative Advertising Agency". What else is wrong with the ads in the New York Journal? Somebody ought to be able to specifically tell us. We concede the possibility of the other state society journals criticizing us. All forward steps throughout history have been at first largely condemned. Who shall judge? Nothing new in medicine has ever at first been accepted. However, I do not want on this occasion to discuss this subject or enter into controversy.

The address of Dr. Hammond on "What Constitutes an Ideal State Society Journal" is almost a text-book on the subject. "The Peculiar Field of the State Society Journal", by Dr. Overton, has much in it of great value though it is also a good deal of a study of what a medical society should do. I would put this subject on the program again—no more papers but as a round table discussion—so as to try to reach conclusions that would be of value to each society represented instead of leaving the subject up in the air and no way in sight as to how to get down to earth again. Surely, no group represented has a closed mind on the subject. However, if they have, no more conferences are necessary. I cannot get over the thought that this subject—state journals—is almost the biggest problem before the profession and that this conference has an opportunity, representing as it does so large a part of the profession of the United States. I have read in preparation for this talk every word of these 2 papers by Drs. Hammond and Overton—all the discussion and all of the acrimonious correspondence. If this whole matter cannot be adjusted, it impairs the value of other conferences for any other subject, and stamps us as different men than I think we are. If every editor believes that he has the best journal, then let us never discuss journals again. If some want a cover and good paper and do not want advertisements on the front page, and others do, then that also is a reason for not touching the subject of journals again. Whatever the plan may be—the kind of editorials, how far an author may go before he violates the policy of the journal, where the journal shall get its advertising or what agency it shall use—if it cannot be agreed upon, then let us waste no more money or time on this subject. If the editorials shall represent the views of the editor or the views of the organization or the articles come to a standard and we cannot agree, then let us talk no more. There is no division of opinion on what indexing should be, though some is good and some is poor. These 2 papers by Drs. Hammond and Overton give all the text needed for a conference, but if out of it all we find nothing to improve our respective journals, then there will be no use in discussing the subject any more.

Suppose we ask each editor to write 500 words on the model journal and submit them to the conference and then exclude the editors from the discussion. I am interested in these 2 papers. I still wonder why you people have not gotten together. You agree in the big essentials—that a journal shall record the activities of the state society and the county society and that it should command reports from each county society and the coöperation of officers and the heads of all committees, without exception. Then there should be proper indexing so as to make all this material accessible; all this is agreed upon.

Under coöordinated leadership these 3 states should be able to see the great problems of medi-

cine and should be able to stick to a discussion of them, one at a time, until a conclusion is found that all can accept. The programs should almost spontaneously appear. The big things in medicine should crowd to the front almost of their own accord. The practical application of professional ideals in medical relationship, in graduate education, in the betterment of public health, and in medical journalism, should give these conferences all that they can do. If it is not thought that these are the problems in medicine, then let us find out what are the problems in medicine and then devote ourselves to finding an adequate plan for their solution. It is hardly enough to keep interstate conferences going to discuss problems that can better be done elsewhere or even by other organizations.

I have carefully saved for the last a quotation from an editorial in the Pennsylvania Journal some time ago: "The value of these conferences depends upon how much can be carried away from them." Let us apply this test, perhaps putting it on the program the next time—giving some round table discussion to it—so as to take a sort of inventory and see where we stand regarding what has been done.

In conclusion, I want to say that friendly conferences will solve more things than any amount of intemperate argument or sharp letters will do and a far better result will be reached. There is a place for these conferences if they are kept away from problems that are being studied better elsewhere and kept away from becoming just medical meetings, and just considered as consultations.

Dr. William T. Sharpless (West Chester, Pa.): There are 1 or 2 points that have been touched upon this morning in Dr. Reik's paper that especially interest me. One is the matter of postgraduate education, carrying instruction to distant parts of the state. Most of us live in or near large medical centers where there is every opportunity for us to familiarize ourselves with what is going on in medicine, but many other people in our states live in isolated places and are hungry for new medical knowledge, and up to the present time no successful plan has been devised by which they can get it. The University of Pennsylvania undertook some time ago to organize classes in the various medical societies and to send instructors to them. That has been largely a failure, I think. Dr. Reik has suggested a plan proposing that Rutgers College, coöperating with the Medical Society of New Jersey, shall give this postgraduate instruction. In some places, particularly in Wilkes-Barre and Scranton, it was attempted to have this instruction furnished by the University of Pennsylvania but that has been given up and they have organized their own school, a sort of Academy of Medicine, largely attended by their own members, selecting their own instructors; and these organizations have proved very helpful. But no plan has yet been reached whereby we can take the instruction to the remote parts of the state and give the men who need it most the opportunity for participating in and gaining up-to-date knowledge about medical matters. No plan occurs to me by which this is possible. It depends, largely, I suppose, upon the person. If they wish to avail themselves of certain advantages they can do so although at a large personal sacrifice. I think that would be a good subject for discussion in these conferences—how to get postgraduate study to the men who need it most. They are unable to leave their practice and go off for months at a time to obtain special instruction on these subjects and it should be brought to them.

The other matter that I am interested in is the lay organizations. They are here in large numbers, have a great many members who are interested in promoting public health and they have very influential backing. We must not assume an attitude of antagonizing these lay organizations. In fact, we cannot afford, nor can they, to place ourselves in antagonism to anybody working to promote public health. They have taken it up largely because the doctors have laid it down. We should direct the work of these organizations, so far as the administration of their affairs is concerned, and cooperate with them fully. I know some of them are very unwise, and exasperating, and some of their enterprises quite unnecessary, but the fact remains that they want to promote the work of public health and the medical profession should try to cooperate with them in every possible way.

Dr. James N. Vander Veer (Albany): I have been very much interested in listening to Dr. Reik's paper because of the fact that I have come into the conference only during these last 2 years by reason of my duties in our state society. We have apparently covered, as Dr. Ross has said, a number of subjects, some of which are very near to us and some of which I believe are individual questions within the states and which a conference cannot discuss with quite as much satisfaction as they can some other subjects. I should like to enunciate one thing which comes closest to me and that is, if we could set a program for 3 successive conferences—to take up this question of "county society work", how the state society can aid the county society—it would seem to me most helpful because that is the nearest organization unit to the individual doctor. It is a very broad subject and is, I think, the strongest one that we can put forward. In my travels through the state of New York recently I found these conditions in 2 of the county societies: One town in Broome County, which is at the southwestern end of the state, had more members present that night than ever before and there I ascertained that their uppermost question was *economics*. They wished to have that discussed. The following night I was in the northwestern part of the state, at a county society which had not held a meeting for over a year, and it was stated that they had a hospital in their largest town, of perhaps 18,000 inhabitants, and that hospital was compelled to hold a meeting because of the College of Surgeons and the American Medical Association—this meeting superseded the county society meeting—but many physicians of the county were not invited. We have had 2 excellent papers before this conference which have simply scratched the surface of the question of the county society and I think if we thrashed that out for a year it would be a big thing for a conference of this sort, for we have our problems within each state as to how to reach the individual doctor. The postgraduate work is a side line. We are all attempting that in the different states.

Then it might be of interest along that line to bring up the factor of the relationship of the doctor to these newer types of hospitals that we are about to see organized in New York State, the county hospitals under direction of our Department of Health. We have one county that has approximately 20,000 inhabitants, and they have just voted at this last election for a bond issue to raise \$80,000 which will be augmented by \$80,000 from an appropriation of the Health Department. With this money they will build a hospital in that county, to be governed—how? That is a question that is now being thrashed out. We still have 5

counties in the state that have no hospitals. Very shortly those counties will be asking what will be the attitude of the county society in that county where the hospital is to be established, and how will the individuals of the medical profession there enter into the care of the sick? I think that matter could well be taken up for discussion here.

I believe that we should enunciate it once more as a principle of this conference that our reports should be published in *full* in each Journal. You in New Jersey do publish them fully, Pennsylvania occupies a middle position, and we perhaps occupy the other end. We officers are handicapped when, for instance, I hear this criticism that down in Broome County they want to know what they are doing up in the other end of the state. We cannot get them to read the journals. You in New Jersey have reporters that furnish, fortunately, good reports of your county society items. We have not adopted that in New York State. I have tried to get the secretaries there to send excerpts to our journal; I have discussed it with the Executive Editor and the Editor-in-Chief of the Journal but we have not arrived at a point where we get the enthusiasm of the county to send in a report. There are so many things going on that the individual physician has not had brought home to him by publication and he does not know what the hierarchy of the state society is doing in connection with other state societies; which would not be true if these notes were published in full.

We have had 2 "text-books", Dr. Ross says, issued to us from this conference. They have been well worth-while but I fear have not reached the individual members in each state represented here. I do not know how much you have had it under discussion in your 2 states but I know that it has not touched the individuals in the state of New York, except in very rare instances; and they ask again what the state society officers are doing in conjunction with other states? I think space should be given to this in the Journal even though it be read by only 10 or 20% of the members of the society, for it will instruct them to a very large degree as to what is going on, and they will know before they come to the annual meeting.

I think we might well take up the subject of county work and we might also give our opinions as to our management of individual state societies, and let us have a round table discussion giving our experiences of the past year on the problems that have confronted us. We might set this aside for another year, planning ahead in that way, for I think we have had in these conferences rather a "hit and miss" program, which undoubtedly has been of great interest to us all who have participated but we have not set out on a definite line, knowing where we are going.

Those would be my thoughts concerning Dr. Reik's paper and Dr. Ross' discussion.

Dr. Ross Patterson (Philadelphia): I came to this meeting with the expectation of familiarizing myself with the views of medical leaders as to the activities of organized medicine. I have been much interested in Dr. Reik's paper, which is most illuminating as regards the purposes of these conferences and the subjects which have been of interest in previous meetings. I fear that anything I would contribute might be threadbare and might deal with some matter already thoroughly thrashed out. Notwithstanding this view, I venture to offer a few comments on medical practice acts and to say that it seems to me the time has come when there should be a general revision of medical practice acts in this country, and I believe that this revision is already underway. My reason for believing that such revision is desirable grows out

of contemplation of the origin of medical practice acts themselves, and conditions as they were at the time those acts were first formulated.

If we go back to the period following the Civil War, previous to which medical education and medical practice in this country had been fairly satisfactory, we find elements that disrupted medical education more or less, and also as a result disrupted medical practice. The rapid migration of foreigners into this country, the rapid increase in population therefore, the rapid settlement of the Mississippi Valley, produced a population and a frontier development that overtaxed the medical educational resources of this country. As a result there sprung up, particularly in the Mississippi Valley, a number of so-called medical schools which were nothing more than commercial institutions organized for the purpose of profit from students instructed or from the indirect advantage which came to those who controlled the schools. As a result of this there was thrown into practice in a wide area a large number of imperfectly educated, incompetent practitioners. And then, of course, followed the necessity for regulation, the necessity for determining qualifications of those who entered the practice of medicine, and out of that situation grew State Boards the purpose of which at first was chiefly to be police boards, to decide questions of licensure and regulation. Most medical practice acts were based upon the necessities of those times. Most medical practice acts of today are still modelled along that line although conditions have changed. Medical education is no longer a problem. The recent graduates of the medical schools of this country offer no problem as to qualifications. The need of medical boards to scrutinize medical students has passed. The method should now be different; there should be some method of free reciprocity. The real problem now is the regulation of those in medical practice, the revoking of licenses, the disciplining of irregulars, and the most dangerous irregular of all is, of course, the licensed irregular.

This, I believe, is the background which shows the need for revision of medical practice acts generally with a different concept as to their purpose from that which existed when they were first formulated. The machinery is already in operation to bring this about. As doubtless all of you know, at the meeting of the Federation of State Examining Boards in Chicago last February, a resolution of considerable consequence was passed calling upon the Association of American Medical Colleges to assume the determination as to the adequacy of education of those who might appear before state boards, leaving such boards free to deal more with problems concerning medical practice. The association at its meeting in New York in November, after considerable discussion, has agreed to undertake that duty. Now that brings about, if this coöperative endeavor is successful, an entirely new situation and the medical practice acts should be redrawn and in their redrafting the views of organized medicine should be considered: How best may irregular practitioners be controlled; what are the conditions under which medical licenses should be revoked; how deal with the regular unlicensed practitioner; what, after all, constitutes the practice of medicine; what is a satisfactory definition of the practice of medicine after our 40 years of experience with medical practice acts, and in many cases before the courts, etc.?

Here again we lead on into some of the problems that grow out of these medical practice acts, such as the difference that exists between the State Boards of Licensure of New Jersey and

Pennsylvania, an attitude which is deplorable and wherever the fault may be the results are deplorable, most of all I should say for the citizens of New Jersey. In the operation of these medical practice acts of the 2 states it results that a medical student from the state of New Jersey who is a graduate of Princeton or some other university of this state may have attended a Philadelphia Medical School and at the end of his medical course he is not free to enter one of the large hospitals of Pennsylvania under the threat of the New Jersey Board of Examiners that they will not recognize his service in that hospital—not because the service is not a good one but because of the difference of opinion over a technical matter of administrative detail of the Pennsylvania Board of Medical Examiners. That results in an injustice to the citizen of New Jersey if he should enter a Philadelphia hospital, in that he would be excluded from practice in this state, and it operates to the disadvantage of New Jersey in that it deprives the state of the services of a well-trained man not only in his technical medical school but his hospital experience as well. I believe, therefore, that is one of the most important things before the medical profession of all our states, a revision of the medical practice acts and in such revision there should be a very careful consideration of many details with an appreciation of, and alteration in fundamental conditions of, medical education and medical practice.

Dr. J. B. Morrison (Newark): This has been the presentation of an outline of what has been attempted to be accomplished by this conference in the last 5 years. It is a matter of great gratification to Dr. Reik and myself, to see this child of ours reach this point in development and attain the even immature condition in which we find it today. It is always a pleasure to watch the development of a child's mind, its attitude toward life as it approaches the age of maturity. Before the birth of this conference the subject matter was given considerable thought for a period of 4 or 5 years and the hope expressed by Dr. Reik—that from some such conference among leaders of medical thought, representing 20% of the medical profession in America, conclusions might be reached that would be of vast benefit to organized medicine all over the United States—is confirmed by his résumé, which shows that the dream may be realized.

I have been interested to hear from the other 2 states just what benefits they may have derived up-to-date and what advice they can bring to this conference for better accomplishment in the future. I have been deeply impressed by Dr. Ross' keen, judicial analysis of what we have attempted to do, of the loss of time and effort, and what the future should outline for accomplishment. We are fortunate indeed to have brought before this conference the results of such a keen, judicial analysis. As no progress is made without mistakes, so we have made ours.

The criticism has been made that the programs have been disjointed; that is because of a mistake of ours that we have allowed the officers of each state to select their own program. We can see from today's discussion that there has been an error, that the accomplishments we expect to secure should come from a concerted effort to control this program and to inject into it only such matters as will be of common interest to us and will lead to securing results that will further the interest of organized medicine, that will raise the standard of the medical profession, that will elicit the appreciation of the medical profession by the public, and that will assist the medical profession to enter

into these vast and numerous schemes for the betterment of public health that are being promulgated today and that are earnestly seeking direction and leadership. One of our greatest problems is to so present to the members of our profession the ideas of idealism, ideas of duty to the public, of what they owe to the citizens of each state apart from the cure of disease, a keen appreciation of all that is expected of us in these modern days of medicine in the line of education, direction and leadership so that in the end our medical profession may get back to the highest standard of respect which it enjoyed 40 or 50 years ago. And I may say that out of these conferences in the next 10 or 15 years some of these hopes of ours may be attained. I assure you that it is with keen personal appreciation that I grasp the enormity and the influence and the far-reaching effects of such a conference to the members of the medical profession of these 3 states.

I had the pleasure a few years ago of presenting to the meeting of State Society Secretaries, at Chicago, a digest of what has been accomplished here and I had a letter from Dr. Olin West saying that from the mass of literature that comes to his desk each month he reads with marked interest every word of every paper and discussion of the Tristate Conference. The effect of the accomplishments of this conference as told there was very marked and the editors of 10 or 12 state medical journals said that they wait with expectancy and hope for ideas that are presented to them as a result of this conference. Already, in the New England states a similar conference has been organized; and I understand that 2 or 3 others are contemplated in western states. I believe that in the future we will see enormous benefits result from the work that we are so conscientiously trying to put forth in these conferences.

Dr. Walter F. Donaldson (Pittsburgh): I wish to compliment Dr. Reik for having reviewed so painstakingly a history of this conference, and as briefly as possible to express my gratitude for the number of meetings which I have been able to attend. I have always come to them in an open frame of mind, looking for suggestions, be they ever so slight, that might be helpful in my work as Secretary to the Medical Society of the State of Pennsylvania, and I believe that coming in that frame of mind it has been with a different approach than that in which Dr. Ross has attended any conference or in which he may have reviewed the discussions of the various conferences which he did not attend. In no way do I intend to criticize Dr. Ross, in fact, I mean to congratulate him because I always feel refreshed by one who will take issue with an essayist; for I fear in most medical discussions we too often neglect to express what we may feel is the truth, and I again compliment Dr. Ross for having opened our eyes to what are possibly weaknesses. At the same time, I challenge any one to point out any conference or any organization that ever, over several years of time, has not indulged in some waste of time and effort. I always come looking for some suggestions that will be helpful to any one of our county medical societies, and have always gone home with some ideas that I deemed worth-while, and as I have taken something of that sort home to help our county societies I feel that the small amount of money expended in bringing me here has been a good investment. I am expecting today to learn much from this presentation that we are about to hear regarding public welfare work by the New Jersey State Medical Society, because we are badly in need of it. We are badly in need of all the help along that line that we can get.

We have gained much from what we have heard of what has been done in New York State under Dr. Sadlier's direction. I would call attention to the fact that Dr. Sadlier is here again after several previous visits, showing that *he* feels that the conference has been really worth-while.

If I might interject a little note in the discussion regarding the differences between the State Medical Boards of Pennsylvania and New Jersey, that has a little different angle, I would like to say that I happen to be a member of the Medical Council of the American Medical Association and while the efforts of that Council to help in the development of all these educational and hospital problems had been largely a matter for the Executive Secretary, Dr. Caldwell, up to the last 3 or 4 years, since then the Council has received a large enough appropriation from the A. M. A. to employ 2 full-time physicians who now relieve Dr. Caldwell in that work. Those men are experienced, well trained in what we believe to be proper equipment not only for medical colleges, but for hospitals for intern teaching. Here are 2 well trained physicians who might be offered as referees to help overcome any differences that exist between these 2 State Boards, because that seems after all to be the fundamental need.

Dr. James E. Sadlier (Poughkeepsie): Personally, I am delighted to be here and to have heard the excellent résumé of the work done by this conference, as shown us by Dr. Reik, and also to have heard the splendid discussion which it has produced. I think that I need tell none of you of my interest in this conference and how eager I have been to be present and get the inspiration and the knowledge that has gone along with each session. Quite as Dr. Donaldson has just said, I have never attended one of these conferences when I have not carried away with me something I could use, that would be beneficial to my own particular state both during the period when I was President of the state society and now as Chairman of the Public Relations Committee.

I never had hoped to get ahead of my friend Dr. Reik on any one particular thing but I would like to announce to him that I *already* have a bound volume of the "Transactions of the Tristate Conference" up to the present time.

For my discussion, I would like to take that part of Dr. Reik's paper which speaks of the voluntary health agencies and the public relations committee. Now, I think that same thing applies to each of the 3 states interested in this conference. If New Jersey has profited with reference to that one particular thing, we have profited in New York in some other direction, and I hope that Pennsylvania may have the same story. With reference to what Dr. Ross has said, I agree with him absolutely that we should take up the matters he mentions. I feel that perhaps we have wasted time along certain lines, but what organization, what effort along any line was ever carried on without some wasted effort here and there? We cannot always bring out the gems at the first meeting.

I am impressed just now with what a lot of time we do waste in our state society and our special committees. My public relations committee during the past 3 years has wasted a large amount of time in ferreting out through a questionnaire a certain problem relating to compensation work in the state of New York only to find that the suspected condition does not exist. Perhaps we have wasted the time of certain men in high official positions on a particular subject that we were investigating, but by wasting this time, so to speak, we have run the thing to earth and

determined that we have no such problem and thus our work is quite worth-while in the end.

At the present time we are faced with a new condition in New York. Two years ago, in my report to the House of Delegates, I mentioned the fact that there were 5 rural counties that had no hospitals; that those counties necessarily could not deliver good curative medicine and could not expect to be very active in the field of public health and prevention of disease. I am delighted to say that today 3 of those 5 counties are in line for the development of general hospital headquarters. But in the development of such hospitals we are practically coming to the question of state aid to the rural hospital in counties that are rather weak financially. We of the Public Relations Committee are endeavoring, largely through a study that we have made of state aid to general hospitals as worked out in the state of Pennsylvania, and to a certain extent as practiced in North Carolina and South Carolina, to so arrange the administration of these hospitals that they shall be a benefit to the community and also a distinct benefit to the medical profession of those counties. Even my confrères from New York State do not know about this at the present time, for it was a conference only the first of this week, and the Commissioner of Health of New York told me that along the line of this development of state aid to the general hospital he had dug up an old law in New York State which made it obligatory that if such hospitals were to develop they should have a governing board of 5 from that county, not specifically mentioning that it should have any physician, and the Commissioner said to me: "That is not right, doctor; that must be changed in the legislature so that there will be 2 or more physicians on that board." I thought it was very nice to find that our governmental agencies in the state would think that there should be proper medical recognition.

I have personally derived a great deal of inspiration from these meetings. I wish to reiterate that I have carried away from each meeting something of value to my state society. Possibly we should concentrate on certain subjects and do better work than we have done, but I am pretty well satisfied with what we have done.

Dr. Joseph S. Laurence (Albany): As one of the 5 "charter members" of this organization present today, it is very stimulating to have the opportunity of seeing myself "as others see us". I am not disappointed nor particularly discouraged in the accomplishments of this organization. Fundamentally, it was established for the purpose of information, a dissemination of information. That was really, as you heard Dr. Reik say, what the organization was intended for, to give one another information regarding opinions upon certain questions, have discussions regarding matters in the different states or state societies. The second function was one of acquaintanceship. I wanted to know Dr. Reik and Dr. Hammond. More than that, we have made an especial effort to have the executive secretaries of the 3 state societies always attend these conferences. Some of you will recall the quotation that "those whom I distrust or cannot count my friends are those I do not know". To know a man is usually to make him your friend. Now that this is working out in these 3 states, I think can be concretely demonstrated. Prior to the organization of this conference we had, so far as I can ascertain from the records and from my own personal experience, no interchange of medical men aside from the purely scientific meetings. But now, in our several conferences, men have been invited from one state

to another, such as in your recent conference of New Jersey County Medical Society Secretaries. We are beginning to interchange opinions with regard to the practice of medicine aside from the purely scientific aspect.

As to the definiteness of a program, I appreciate to the fullest extent any disappointment or discouragement that any person might have experienced who attended these conferences or who has read reports of them, but how can it be otherwise? We are 3 individual communities, we have our traditions and they are powerful, that we are living by and limited by. We are thoroughly imbued with those traditions and we try to meet a problem which is common to all of us but each of us sees it through his own colored glasses, and often forgets that the other fellow has a different colored glass. We tell our story and feel that each individual has contributed something and then go home. Now right there I think is the greatest weakness of our conferences. We have indulged in too little general discussion. We have apparently let our conferences run into papers which have been read, a few complimentary remarks made, and we go away. I do not believe it ends there; not for a minute. Those of us who have been here think the matter over and more or less incorporate it so we can use it in our own communities. I know that has been true with me; and with you because I see it in your own states. But at the time of the conference, I believe it would be better if we limited ourselves to a short statement of some question and then discussed it in a round table manner.

Now, it is very difficult and discouraging to those who have presided to note the manner of discussion and how frequently people have gone off on tangents. I might refer to my last paper regarding the county society. I thought I would get a lot of discussion on that subject but I was later disgusted to think of what happened to that paper. I purposely made it short and threw out a number of suggestions for the sake of argument. I got no such response as I had hoped for. A number of people discussed it, some hewed to the point but some went wide of it, relating personal experiences, etc. I believe we could improve this by coming right to the point.

Looking at our programs in the first meeting I see that we discussed the Medical Practice Act. That was highly profitable. I wonder how many of us know what our several state medical practice acts are? How many New York men have read the New Jersey or Pennsylvania Acts? Do we know what the other states have? The conference on that question gave us some knowledge of the differences that exist.

The "nursing situation" is a common condition all over the United States. It has not been solved, but we now know what our common situation is. We did not improve the condition in New York State. It is just where it was before in one sense, and yet it is not, because the state officials have a different attitude about the matter since our discussion. You can find in New York at the present time an effort to revise the curriculums of nurse training schools, and it will be along the line that we outlined at our first meeting. It takes time to get those things across. After all, our discussion is simply an interchange of ideas as to how things are moving. Now they are moving along that line in New York, knowing that they have the stimulation and backing of these 3 societies.

As to "graduate medical education". We all have profited by knowing what was going on in other states. We thought New York had the ideal system until we heard it discussed in Pennsyl-

vania, and we then modified it somewhat in our state. We employed medical educators to go throughout the state but not in the way that Pennsylvania did.

"Periodic health examinations": We have not gotten far with that subject yet. Dr. Vander Veer is telling the people in New York State a way that he has made it work, and he has the right idea about it, I think.

"Group Insurance": We of New York learned a lot about that. We believe that we have a good method and are more convinced when we learn what some other states have. You are just as convinced perhaps that yours is as good, but we are more intelligently operating now with our system.

The "Workmen's Compensation Law": The discussion of the New Jersey system as Dr. McBride gave it helped us to understand the shortcomings of the New York law. They have not all been corrected but we are in a position to help correct them when the opportunity presents itself, and it will be along the line that we worked out here.

The opposition to the "Narcotic Act" was discussed. The conference brought about immediate combined action by the 3 states and we had a response from our Congressmen which we could not have gotten had this not been undertaken in a unified way. It gave the Congressmen at Washington the knowledge that here we were combined in regard to that law.

We now have a combined notion concerning approach to the "voluntary health agencies" and it has reflected upon those agencies. They are operating in their several states as a unit and we were operating as 3 units but our agreement is now having its good effect.

As to "state control of private hospitals", my suggestion would be that the next program should reopen that question. We have it in New York State as a living question. The New York county societies have discussed it, the Board has discussed it, there is a communication to be given to our Executive Committee next Thursday from a doctor in New York State showing the same thing that Dr. Morrison expressed as existing in New Jersey in 1927. We should study this New Jersey law and see how we can benefit by it in New York. Our Social Welfare Board, in New York, has been wondering how it could reach the private hospital or the one that does not accept public funds and, we may find something of benefit from the discussion we had here and the law that you afterward secured.

That brings me to another point—State Aid for Hospitals. When that subject first came up, Dr. Sadlier asked me to get in touch with Pennsylvania and see how they were conducting their state aid program. He had learned about that from one of these conferences. We have made a study of it and presented it to the Commissioner of Health and there is no doubt that we will profit by the laws we have gotten from Pennsylvania through these conferences.

I could find something in nearly every one of those conferences that has been helpful to us in New York. I am speaking particularly of this community of interests that we are getting from all of these things. We are not any longer 3 individual states but we are a community of one-fifth of the practicing physicians of the United States. It is true the discussions have not gone out as far as they should have gone but they are with the leaders of medicine at the present time. Here are gathered the Presidents, the Past-Presidents and the Presidents-Elect of our 3 states, and they

are the ones upon whose shoulders the conduct of medicine is resting. They may here learn to know each other and that is worth-while in itself, whereas we had no way to accomplish that before.

Speaking of the matter of reciprocity, it was a great pleasure at our Eighth District Branch meeting, in Buffalo, to meet Dr. Metzger and Dr. Albertson with regard to establishing reciprocity. I feel certain that matter was largely stimulated through this conference. Dr. Albertson was present when we were discussing in this conference the reciprocity restrictions which we deplored. Pennsylvania physicians are now getting reciprocity in New York State in a much simpler and more concrete way than they did 6 years ago. Our State Departments of Education would not get together, but they finally took their suggestions from the discussions at this conference and they are certainly having a good effect.

Dr. Ephraim R. Mulford (Burlington): I feel that to have this discussion close without saying a word would be denying myself a privilege and a responsibility. Having just passed through the Chair as presiding officer of the Medical Society of New Jersey, I feel that perhaps I can add just a word to say that out of this Tristate Conference we obtained so much material for discussion and dissemination to our county medical societies throughout New Jersey that to me, personally, it was a great help in our year's program just closed. I have never attended one of these conferences without taking home much material for thought and much food to sustain us in our public and organizational work.

One of the strongest points not definitely brought out today, as regards this Tristate Conference, although nearly every point has been touched upon, is the effect of this conference upon public opinion. Public opinion is the most powerful influence in America today and I find that all through our state, even in the small counties, the work and the progress that are growing out of our deliberations in these conferences are having a vast influence upon public opinion. For that reason alone I feel that these conferences have been greatly beneficial.

Dr. Frank C. Hammond (Philadelphia): There is no doubt that Pennsylvania is quite in accord with the conference plan, feeling that we have gained a great deal of value to our state societies and also to our county societies. The Editor has endeavored by speech and writings to carry the messages from this conference to our various county medical societies. There is a great deal for an Editor to write about. It has been my practice in the last few years, in reading the galley proof, to check off the matters of interest that would be of value to the Trustees and Councillors, and we mail a letter to each man calling attention to these features, when the Tristate Medical Conference minutes are being published. The question arises very often, how to induce members to read the state Journal. How many of our Trustees read the Journal through? Dr. Sharpless says that he reads it from cover to cover and that in that way he has learned a great deal about general activities, and it has aided him in carrying much of benefit to his district. That seemed to me a very valuable feature so far as the Trustees and Councillors getting these matters of interest before the county societies is concerned.

Dr. Reik has covered very well the various conferences we have had and the subjects taken up for discussion. I am heartily in accord with Dr. Ross' suggestion for a round-table talk.

In regard to the medical practice acts, we are still very unhappy in Pennsylvania with our State Board situation. Our Trustees are very active trying to bring about a more happy situation between the State Boards of Medical Examiners of Pennsylvania and New Jersey but we are just as far off as we ever were; we are very unhappy about that situation, in Pennsylvania. I touched upon this subject editorially a few months ago and I understand that following that meeting the Board of Examiners discussed it. One feature called attention to the fact that any student of a medical school who is anticipating taking the State Board examination in Pennsylvania would have to bear in mind the fact that he would have to serve an internship in some hospital that was recognized by the Board and advising them to consult the Pennsylvania State Board before accepting a hospital internship to make sure that they would be eligible for licensure. I do not know whether that particularly stirred up our Board but they have recently called attention of the medical schools to that one feature.

In regard to the abolition of diphtheria, we have carried that report showing what was being done in the other states and that has brought up the relationship of the State Department of Health to the local profession. The State Board of Health took the position that if the doctors did not take care of this situation they would have to do it. We finally carried the message to them that the state is not trying to take away from them their practice but that they would have to get on the job. The Secretary of the State Department of Health in Pennsylvania feels that we have put this message over very well. In other words, the State Department of Health is not trying to usurp the practice of the profession but unless they do the work the Department of Health must do it and much has been done to overcome this lethargy on their part.

In regard to the periodic health examinations, I suppose we are just as sluggish as in other states. We are trying to keep the matter before the medical profession. One point may be of interest to you and that is the Woman's Auxiliary has taken up the cudgels. They have pledged that each member will have a periodic health examination before the meeting in October next and that the members of their household shall also have a periodic examination, and they hope that in this way they will perhaps do a great deal more than the medical members of their households have been doing. They have seen the necessity for it and have become very active in this particular movement.

We have not been able to get very far with the problem of expert testimony. Our State Bar Association has discussed it very strongly and taken it up with the American Bar Association. It is one of those unfortunate things that one who is not competent to give expert medical testimony is permitted to enter any court and be accepted by both sides. Since both sides are agreed, the judges cannot interfere even though they do know in their communities those men who call themselves medical experts are not giving straight-forward, honest testimony. Some months ago a man with a broken leg and a deformity brought suit against his physician, alleging improper surgical care, and one of the medical men in Philadelphia testified against the surgeon in attendance. We took the question up with the surgeon, who is well known as a teacher, well versed in fractures and dislocations, and he told me that he was thoroughly surprised when he entered the court to find that suit had been brought against the physician. I can-

not understand any man giving such testimony and not knowing the full facts of the case. He said he did not know the suit had been brought against the physician and did not know that a physician was to be defended. I think there were 2 physicians. The jury disagreed at the first trial and at the second trial the Council asked me if I would have a talk with the man and see what his attitude would be. He realized then that he had testified against the surgeon and he said that he was caught on a hypothetical question which the lawyer asked. He had to answer "yes" or "no", and of course it was derogatory to the medical man in attendance but if possible he would not go up a second time. Recently when the case came up for trial again we were much surprised to learn at the meeting of Trustees that another physician of Philadelphia had gone up-state and testified against the physician in this particular case; he had been out in practice less than 2 years, was absolutely unknown, and I have found since that he was not qualified to discuss dislocations or fractures, much less to give expert testimony. The jury again disagreed. This is simply a little situation of ours with which you have all had more or less similar experience.

The county societies are always live wires for discussion and we have done everything, as the other state societies have done, to carry the discussion right into the homes of the county societies because after all that is the rock bottom of our medical organization. I made the statement a short time ago that in the activities of any hospital the patient was the primary consideration, and so is the county medical society the primary part of the medical organization. Some of the men took issue with me and thought the state society was the primary organization. The county societies are the sheet anchors, the workers in the field, and unless we can get the message started with them we will not get far.

Dr. Henry O. Reik (Closing): As explained in the beginning, one of the reasons for preparing this résumé of the work of the Conference during the past 4 years was that some of you were not familiar with its origin and purpose, and I may say now that of the 14 members present this morning 8 have come into the Conference during the past 2 years. They would probably be unfamiliar with the origin of the organization, its plans, and what it has been attempting to do. That was evidenced at some recent meetings by discussions on the floor, and it seemed a sufficient reason to review the matter so that present members would know something more of what it is all about.

The second reason was touched upon in Dr. Ross' prepared discussion. I invited his criticisms today and I think they will be very helpful. Some of them will certainly be beneficial if we can adopt them. There are some of them with which I might take issue, but we will not enter into a lengthy discussion at the present time. He has referred to an acrimonious correspondence that took place within the past few years. Now that correspondence was intended to suggest to our New York members a way to make better use of the Conference. I think it is unquestionably true that New Jersey has profited more by these conferences than have New York and Pennsylvania. That is naturally so in all affairs of life; when the poor members of a community enter into association with the richer ones, the rich have to give something while the poor are receivers. I felt that the New York State Medical Society was not getting value received for the money it was investing in this company. I suggested a means by which it might better profit, because we were

profiting so abundantly by it here in New Jersey. Most of the members of the New Jersey State Society, at least those who read the Journal, are familiar with what the Conference has been doing, but it is difficult to find a man in New York State, outside the society officers, who knows anything about it; and I know that because I have a good many friends in New York State. That was the reason for my suggestion.

Now, I had also a fear in my mind that New York would not continue in these conferences with us. The Presidents of the New York State Society and the Presidents-Elect have always been enthusiastic workers in the conference, but some other New York officers have not been. I was not unaware of the fact that the Trustees of the New York State Society had discussed the cost of this Conference and were wondering whether they were getting value received. Then came last year when 3 members from New York were forbidden to attend the Conference held in Pennsylvania lest their feelings might be hurt in discussing journalism, the subject to be on the program. They gave as a reason for remaining away, that some members of this Conference had taken part in a discussion of Journal ads at a meeting of State Society Secretaries, held in Chicago under auspices of the A. M. A. I am also aware that the House of Delegates of the New York Society last year limited the budget expenditure for this Conference to a very small sum of money (\$50). Dr. Ross referred to the cost of these conferences, and I would say that of the 4 meetings held in New Jersey, the first 3 cost less than \$90 each, and the last one cost \$145, because of the extensive discussion reported. Our society appropriated \$150 for this year, and we will not expend it all. I am familiar with the fact that Congress and state legislatures have a nice little trick of passing bills and not passing an appropriation to carry them out effectively. So, despite the enthusiasm of the Presidents and Presidents-Elect of the New York State Society, we feared New York might be dropping out and we cannot afford to lose any of these states. If any one state drops out the Conference becomes a non-entity.

I am delighted to hear nearly all of the New York members here today speak so enthusiastically about the results of the conference. I am particularly pleased that Dr. Vander Veer has so strongly emphasized the point I was making—of publishing all of these conference transactions, *in full*, in the state Journals. That is the one thing that we feel has fostered such great benefit to New Jersey. Dr. Ross has raised the question as to whether his Journal can afford that much space. It is an individual problem for each state to determine but I am glad that Dr. Vander Veer feels that it is a worth-while expenditure.

With regard to the programs, the Secretary, certainly if he is to remain Secretary, is delighted to hear that we are to have the programs arranged for us hereafter. Let me assure you that not a single program has ever been prepared by the Secretary alone. There has always been more or less correspondence with the officers of the state in which the meeting was to be held, and the 2 particularly worthless topics referred to by Dr. Ross—"nursing" and "expert testimony"—were put on by New York. (Laughter.)

The suggestion of Dr. Vander Veer that we devote one or more meetings to "county society affairs" is an excellent one. We did profit from those 2 meetings and I think we can well have it on for another time. Also, Dr. Ross suggested that the question of "journals" and "journal man-

agement" should be put on again for discussion; I quite approve of it, and New York will have the opportunity to arrange such a program for the next meeting if her officers want to do so.

As to whether there has been any waste of time in the programs, I quite appreciate what Dr. Lawrence has said and I am quite sure that there has been no particular waste, unless it is the time you have had to listen to *me* talk.

It has been pointed out that one of our first meetings took up the question of postgraduate education. Four years ago we tried to transfer to our state society what we had learned here. We failed then but at the end of 4 years we have gotten it over and feel that we have now profited by the paper of Dr. Meeker and the report of Dr. Gordon. Some of our problems discussed have not yet come to full fruition, but I do not think the time we have devoted to them has been *wasted*, for we may yet profit by some of the discussion. It requires time for some things to develop.

Dr. William H. Ross: I think this has been an exceedingly wonderful meeting. Reviewing the past and seeing just what is underneath, and digging it out, has been most valuable. It seems to me that it is rather a remarkable meeting. It is of very little value to go on with any meeting continually commenting upon the good things, just as it is of very little value for any one to tell of his successes, in a medical meeting, and never speak of his failures. In that sense, I think we are in the way of clearing up a great many things. Again, I want to call your attention to the prepared discussions. I set down on either side columns of figures, not knowing how it would come out, and you have seen that it has come out rather in favor of the conference, so it seems to me that what we have done today has been more valuable than anything I have known about the Conference heretofore.

Dr. McBride: The next paper is to be presented by the Field Secretary of the Medical Society of New Jersey, and I have the pleasure of introducing Mrs. Taneyhill.

Public Educational Program of the Medical Society of New Jersey

Ethel C. Taneyhill, Field Secretary
Medical Society of New Jersey

Inasmuch as a period of 5 years has elapsed since the Medical Society of New Jersey first placed an authorized representative in the field of public education, that phase of the society's activities can no longer be regarded as experimental. It is frankly admitted, however, that the *modus operandi* is not yet crystallized, chiefly for the reason that the field has proved so large and the public so receptive that we have been obliged to adopt the apparently aimless progress of the ameba, pouring ourselves now into this and now into that exploring protrusion. And even as the ameba does undoubtedly acquire experience in its gropings, learning what it can engulf and assimilate and what it should let alone, so are we gradually forming convictions as to just where our reaching out will prove most effective.

In the belief that the development of the educational program, in so far as it has proceeded in New Jersey, might be of interest to you who have so large a part in molding the policies of your own state medical societies, we have accepted the invitation to present a brief review of our pioneer efforts in this direction.

I am told by Dr. Reik that when, in October 1924, he assumed the office of Executive Secretary of the Medical Society of New Jersey one of his

several assignments was the inauguration of a campaign of public education. He says that he knew next to nothing about the subject, and received no instructions that would help in the establishment of such a program. His first effort was to ascertain what had been or was being done in the neighboring states of New York and Pennsylvania; and then to inquire about conditions in Illinois and California where, according to rumor, public education campaigns were being conducted. Very little help was derived from that investigation; that is to say, very little information applicable to the situation in New Jersey was obtained, and it became evident that it would be necessary to start from the bottom and proceed according to local needs.

The activity of the cults, several of which were striving for recognition in the form of special legislation that would confer upon their followers the right to practice medicine without compliance with the existing medical practice act determined the first step, which was the enlightenment of members of the state legislature and state officials as to the standards and objectives of the medical profession. This was attempted by a series of letters to State Senators and Assemblymen, designating bills then pending and explaining, briefly but clearly, why physicians opposed or approved such measures. That plan has grown into the present custom of regularly informing every member of the state legislature as to the attitude of the state medical society, with its 2500 members, toward any and every proposed Act that bears upon public health questions. With each statement of approval or opposition goes an explanatory note setting forth the reasons for the stand taken by the medical profession. As a result of this policy, legislators have come to look for such information and even to use it in their arguments for or against Acts under consideration—a very distinct gain for organized medicine in this state.

Coincident with his legislative work, the Executive Secretary attempted to reach the general public by every available channel. He secured state lists of Rotary and Kiwanis Clubs and of the women's clubs included in the state federation. A circular letter to the secretaries of these organizations brought prompt responses from the men's clubs, possibly because the small town club secretaries find it difficult to secure speakers for all of their weekly luncheon meetings. Very few of the women's clubs responded. At Rotary, Kiwanis, Lions, and similar luncheon clubs, Dr. Reik took advantage of every opportunity to explain the attitude of physicians toward matters of public health and individual well-being, emphasizing the importance of preserving physical fitness by preventive measures such as the various immunization procedures, and stressing particularly the advisability of periodic health examinations. It was of course emphasized that the family physician is the proper guide in all such matters. During the year 1925-26, Dr. Reik addressed 38 lay organizations in addition to the 21 county societies. In 1926-27, he traveled 20,000 miles in the state of New Jersey preaching periodic health examinations to lay audiences.

In the second year of his work, Dr. Reik secured the privilege of broadcasting 15-minute health talks once a week from the Seaside Hotel at Atlantic City, Station WHAR—which voluntarily went out of existence when the Government took over control of air channels—and each year since then he has conducted these talks on Friday evenings at 8.30 from Station WPG, the municipal radio station of Atlantic City. Programs have

been arranged well in advance, speakers being carefully selected with reference to knowledge of special topics of interest or import to the public; and the manuscripts submitted have been carefully edited before presentation on the air. If not convenient for the author of the paper to visit Atlantic City and broadcast his own speech, the actual delivery was performed by the Executive Secretary or his office assistant, Miss Mahoney. It was required that all papers must be submitted at least 2 weeks prior to date of contemplated delivery, so that they could be reproduced by mimeographing and copies sent to all newspapers in the state with a release date to coincide with the hour of broadcasting.

This quadruple publicity program has been carried on for 4 years: constant appeals and reports to the county medical societies so that each should be apprised of what the state society was doing in its territory; addresses to lay organizations of all sorts, in the small towns and villages as well as in the cities, wherever an audience could be gathered to listen to an explanation of the physicians' views concerning the safeguarding of health; broadcasting once a week, from November to May, some feature of the preventive medicine program of the state society; and, finally, securing the printing of these radio talks on "How to Keep Well", in as many newspapers as possible throughout the state.

It is fairly easy to estimate the number of persons reached by public addresses from the platform but no one can deduce satisfactory figures with reference to radio listeners or newspaper readers. The effect of this educational program cannot, therefore, be stated with mathematic accuracy. We can only say that there is considerable evidence that it has been far reaching and has done a great deal of good to the medical profession as well as to the public. Many messages have been received from radio fans, as far east as Scotland and as far west as San Diego, expressing thanks for information given, or requesting further information or advice on medical subjects. Lay organizations have not only gone on record with the customary vote of thanks but in many instances have, a year or so later, requested the lecturer to return for another talk. The Tuberculosis League and the Antidiphtheria Campaign Committee have both found their labors facilitated in regions where this educational program has received most attention. Messages from different parts of the state indicate the stirring up of considerable public interest in the question of periodic health examinations. Finally, individual physicians have reported an increase in their work definitely traceable to the public health program.

In the third year of Dr. Reik's indefatigable labors in this field, a new factor was brought into cooperation—that of the Woman's Auxiliary to each county medical society. This organization has great potentialities for rendering assistance to the public health and preventive medicine programs but inexperience on the part of its members, indifference or reactionary opposition on the part of members of some of the county medical societies, have prevented its development to anything like full capacity, because, speaking generally, it has become quite patent that the efficiency of the county auxiliaries develops in direct ratio to the attitude toward them of the county societies. Three counties may be classed as inactive. Five are holding regular meetings, attended in about the same ratio to their potential membership as are the county society meetings. Two are still young and apparently open-minded, while 8

are doing definitely constructive work in one or more of several fields: (1) self-education through prescribed reading and instructive programs at their meetings; (2) public education, by promoting our health program; (3) hospital assistance, by making surgical dressings, by gifts of needed equipment to hospital wards and special appliances to patients, and (4) last, but not least, the placing of Hygeia, either by securing subscriptions or by donating same, in the belief that, when readers have become accustomed to receiving this magazine, they will insist on its being placed on the regular subscription list of clubs and reading rooms. One county auxiliary—Burlington—has so flourished under the chivalrous attitude of its medical society that it has divided into 4 regional groups, meeting monthly, while the county meetings are held quarterly.

Five auxiliaries have, at the request of their county societies, rendered appreciable aid in bringing pressure to bear on their representatives at Trenton in regard to 3 bills introduced in the effort to acquire for osteopaths, naturopaths and chiropractors greater latitude in practice and the use of the title of "doctor". That the letters written by members of these auxiliaries, and their interviews with the legislators, were by no means negligible was evidenced by the statement of one senator to the effect that, while the cults introducing the bills had been most active in their support, not one local physician had approached him to urge opposition to their passage. "But the women!" he exclaimed. "They have deluged us with letters, leaving us in no doubt as to where the medical profession stands in the matter."

In the counties where the auxiliaries have been encouraged and are prospering, their coöperation with the county chairmen for the antidiphtheria campaign has extended all the way from securing opportunities for presenting the subject of immunization to the schools, Parent-Teacher Associations and other groups, to the actual conveying of preschool children to the clinics.

As Dr. Reik's assistant, my own personal connection with the educational work began 3 years ago this fall, coincident with the first year's existence of the auxiliaries, and I was very soon led to share Dr. Reik's opinion, namely, that this educational program, like charity, should begin at home. It was right at the threshold that we met our 2 chief stumbling blocks—the lack of knowledge of many of the doctors' wives in regard to the subjects we wished to put over, and the reactionary attitude of individual members of the profession, especially in regard to diphtheria immunization and periodic health examinations, which immediately nullified much of our effort in certain quarters.

By way of illustration, may I cite my oft quoted example of the doctor's wife who asked me in open meeting one day if there had been many fatalities from the Schick test. And of the wife of another doctor who announced before a group which we were trying to convert to the antidiphtheria campaign that she did not believe in serum inoculations of any kind; that she thought the blood should be "a protective agent". Then there was the physician who thus addressed a Board of Education that was on the point of voting the necessary funds for a toxin-antitoxin clinic in the school: "Your supervising principal says that it requires 4 to 5 months for toxin-antitoxin to take effect. But I tell you that long before that time has elapsed the toxin-antitoxin and all of its effects have entirely passed out of the system." Needless to say it will be many years before the

effects of this speech have passed out of that community.

At another school board meeting, just before the question of holding a clinic was put to vote, one member asked the physician present if any serious reaction was to be expected from the toxin-antitoxin injections. Instead of giving the very reassuring statistics available, not only from medical authorities and boards of health but from many school principals, this physician launched into the possible results in cases of sensitivity to horse serum and attendant anaphylaxis with such fidelity that the Board was very soon persuaded that it had been providentially led to protect the community from a grave menace.

In regard to periodic health examinations, the story comes back to us repeatedly that the earnest applicant for such a check-up has been merely slapped on the back and told that he gives no evidence of anything being seriously wrong with him; that he should go about his business and "forget it". Indicative, perhaps, of the general attitude of the majority of the profession was that of 3 physicians who were in my audience at a Rotary Club luncheon, where I spoke on this topic. Several times during the course of my remarks I turned to one or another of them for a confirmatory nod or the moral support of a mental handclasp, but each time I drew a stolid blank. It became evident at the close of the talk that this was not because they had been storing up enthusiastic encomiums; so, to relieve the awkward absence of the usual felicitations, I asked if they had been doing much in the way of periodic health examinations. "Some", said one, "some". "Oh, I suppose it's bound to come", he added, as though trying to resign himself to some impending calamity.

Such experiences naturally give rise to the pertinent question—why arouse the public to the logical benefits of acquiring the habit of an annual physical examination when we cannot deliver the goods? Will the demand create the supply, or will the public eventually just lean comfortably back in its seat and remark good-naturedly: "Yes, that's a very pretty fairy story"? The command is to "Carry on!" So we hearten ourselves with the knowledge that even at the present time some physicians are specializing in this work and that the A. M. A. is urging medical schools to lay more stress on the teaching of preventive medicine. It is not unreasonable to hope that an educated public will eventually awaken to the tremendous importance of the post of school physician and will see to it that the salary is made commensurate with the responsibilities of such an appointment.

To create a health-minded, health-conscious public is, then, our endeavor, and for 2 years we optimistically relied on the county societies and auxiliaries to see eye to eye with us in this matter. Through the intermediary offices of these 2 organizations we were enabled to reach during the year 1927-28, a total number of 47 audiences, comprising in all 6700 persons. Our record for the year 1928-29 was 76 talks to an aggregate audience of 6250. Inasmuch as the total number for the first year was enormously swelled by 2 school groups of 1000 pupils each, and as we had no such items the second year, an estimate of the growth of our work must be based on the appreciable increase (60%) in the number of talks given. This was consoling but not satisfactory. Part of that increase had come through coöperation of the medical society with the State Committee for Prevention of Diphtheria. I had acted as Secretary for the Executive Council of that committee, the minutes being mimeographed at Dr. Reik's office

and mailed from there. My services as a speaker had also been placed at the disposal of the committee, so I regarded the increased activity of the second year as a temporary inflation rather than as a substantial gain. Naturally, I gave the matter much thought.

Only 3% of our invitations to speak had come through members of the county societies. The balance of our accomplishment stood to the credit of 7 of the auxiliaries. I had traversed the state in all directions, doubling back on my tracks repeatedly at the beck and call of any group that would give us a hearing. Such lack of system was a waste of time, effort and money. It also placed our whole program at the mercy of the fluctuating enthusiasms of the county groups. I recalled that the talks I had given in the schools had been well received, and my experience in a 2 years' tour of the mission fields in the Orient told me that the hope of a new doctrine lies in the rising generation; that its foundations will be laid in the homes established on the precepts of the class room.

I therefore went to Dr. Ireland, the Director of Physical and Health Education in the Department of Public Instruction in the state of New Jersey, and asked him if he did not believe that such instruction as the medical society was offering would have a definite place in the health education of the school child. He took the matter under advisement and within a short time submitted a schedule assigning me to each of the 21 counties in the state for definite consecutive periods of time falling within the limits of November 1, 1929, to May 16, 1930, week-ends and holidays being omitted. He further notified each of the county superintendents of the time allotted to his county and I followed this letter up with one of my own, explaining our objectives and asking each of the superintendents for a definite reply as to whether it would be his pleasure to accept our offer. To our pleased surprise, 17 of the 21 superintendents gave us cordial support. One additional county will come in next year; 2 have not been heard from; one declined on the ground of inadequate help for organizing a program in such a large territory as his county covered.

From September 18 to November 4 of this year we were able to accept invitations to address 13 organizations, chiefly Parent-Teacher Associations, embracing a total of 718 persons. Since November 4, the county school program has been in effect and we have just completed our fifth county assignment. Number of talks given in schools, 69; number of pupils reached, 13,288; number of talks given to older groups, 20; number of persons reached, 850; total number of talks since September 18, 89; total audience, 14,138.

The talks have been well received, in some cases enthusiastically welcomed, by principals, teachers and pupils, and we have had many invitations to return. The county superintendents have, without exception, answered my questions as to whether a similar annual message would be acceptable, in the affirmative. Some have gone so far as to say that it is an actual need. My audiences have been gathered in spacious assembly halls, or in class rooms where they had to sit 2 on a seat, with many standing around the walls and down the aisles. Once I stood on a chair in the entrance hall of a school while 250 pupils also stood in a many ringed semicircle about my improvised platform.

While the theme most stressed has been that of preventing focal infection with its attendant degenerative processes, by means of frequent consultation with doctor and dentist, the subject of

diphtheria immunization has been presented whenever the occasion has seemed opportune. A year ago we added to our repertory an illustrated talk on "The Life and Work of Pasteur". For this lecture Dr. Reik had secured, during the previous summer in Paris, about 40 pictures, from which slides were made. A small lantern was provided by the society and to date the talk has been given 16 times. On several occasions the nurses from nearby hospitals have been invited to hear it, and among the requests for its future delivery is one for the chemistry classes in a high school.

The form in which all of these subjects are presented must of necessity be extremely elastic; for children of the fifth to eighth grades a simple narrative, broken by occasional direct questions bearing on the personal application of points covered. Then a jump to the frankly biologic aspects which would claim the interest of high school students. The Kiwanis and Rotary Club members want to know just how the annual physical examination has worked where it has been tried out, and what economic as well as physical gains may be expected from it. The Parent-Teacher Associations are interested from 2 standpoints; possible benefits to the individual adult member, and possible advantages to the children and pupils of these members. The Business and Professional Women's League has an open ear for any proposition that holds out hope of greater working efficiency and deferred old age retirement.

We might continue thus through a long list of organizations to show how vitally each one of them is interested in and affected by the matter of personal health, and how more than willing they are at least to give a hearing to anyone who professes to be able to throw a ray of light on the subject. The field of educational work along this line is practically boundless, but such an enterprise requires, in common with all similar undertakings, systematic circularizing and persistent follow-up.

If I am any sort of prophet, I should say that the Medical Society of New Jersey will, at the close of this year, be confronted with the necessity of taking on an additional field worker or of limiting the educational work to either school or adult groups. Under present conditions, Dr. Reik is still carrying the radio program and the legislative supervision while the Field Secretary continues to decline requests for talks that would conflict with the county programs. In 2 instances where schedules of prospective visits have already been made out for us, in addition to our talks in the schools, almost every evening is filled, and several afternoons after school hours, with engagements to speak before adult organizations. I submit to this body here assembled and preëminently fitted to render an expert opinion, that no one can give 4 to 6 talks a day, to audiences ranging from 20 to 800, and still retain sufficient effervescence for a sparkling evening address.

In a most comprehensive and valuable book, called "The Struggle for Health", Richard H Hoffman has this to say: "Our boys and girls are taught to salute the flag; they are taught to be proud of their national military heroes, their statesmen, their inventors. But those illustrious pioneers who have contributed more to the health and strength of the nation than army or navy, court or school; who wielded their tiny swords in defiance of man's most pernicious enemy, the microbe, have remained unsung."

To supply this tribute is the unquestioned privilege and obligation of the medical profession; to remedy this defect should be, to my mind, the main

objective of medical educational work, for in its accomplishment all other desired ends are attained.

Dr. McBride: The hour for luncheon having arrived, you are all invited to move over to the next room. Discussion of this paper will be taken up immediately after lunch.

AFTERNOON SESSION

Dr. George N. J. Sommer: Unfortunately, Dr. McBride has been called away and I am asked to preside in his place. I shall call upon the President of New York Society to open the discussion.

DISCUSSION

Dr. Vander Veer: This paper of Mrs. Taneyhill's is of exceeding interest to me because at the very first meeting of the Council of our state society I presented what might be termed an inaugural address in which I gave the experiences of some state societies in having a field representative. Some of them, as we know, have doctors and some have lay representatives, men or women. I think we are losing sight of one of the strongest forces in our own state for the upbuilding of medical defense and protection, and aid in various of our endeavors, when we neglect the women. As Mrs. Taneyhill has shown in her paper, there are efforts where, very legitimately, the women may bring about changes in legislative thought for our own benefit. Then again in health matters the women can do far more than we men can do as physicians, because if we raise our voices we are accused of hoping to benefit thereby, and we will, of course, be the ones to benefit.

Perhaps it may interest Mrs. Taneyhill if I relate a few little experiences that I have been preaching in New York State, that she might turn over to her doctors, for the program seems to be rather universal in these 3 states. I have been asked for 3 successive years to go into a small county town of perhaps 3000 people where they have a woman's college. I went there in October of this year and the doctor who gave me the invitation said the women wanted me to come and talk to them again, wanted me to lay out a program for their work this winter. I prepared a careful health program for them to follow. The total cost of my visit was about \$3 and the next day the doctor who had invited me had 5 or 6 women to examine physically; mention having been made in my talk of what the health departments and the medical societies were advising as a personal health program.

Dr. Wynne, Health Officer of New York City, gave me a clue to the subject of economics in which he said that we doctors had been going along the same old lines and had not created any new business, so I finally evolved this as a slogan in New York State: We cannot get away from the lay organizations, therefore we will lie down with them and ask them to provide means for carrying on the health programs and we are going to benefit ultimately from the periodic health examinations by an increased income. As a concrete example, take a town of 3000, if only 200 come to us for examination at \$3 each that would be \$600 that would accrue to be divided among the doctors; if 100 come for examination at \$25 each there would be \$2500 to be divided. That led me to see what my own experience had been. I am a urologic surgeon and yet I have a number of people who came originally to me for examination and who have come annually once or twice year after year.

I would like to have this question discussed: I have a dentist who every 3 months sends me a

little red card which says my date is due for examination. It costs me money to visit him but it is prevention. Is it ill-becoming a county society to make this investment, to take a sum of money from its treasury and send to the individuals in that county a card stating a few of the pertinent facts regarding health examinations? Let us take a county of 50,000 population in which for 6 cents a piece, or a total of \$3000, every person would be reached. If they got 5000 back for examinations during the year at \$5 each, \$25,000 would go into the pockets of the physicians who made those examinations. That is the thing that strikes home to our doctors in New York State. I go into a county society and they say we do not want to hear you talk unless you can tell us how to make a dollar. Is it unethical, I would like to ask, for a county society as a group to do this? I understand there are certain county societies who advertise as a group and I have been preaching in New York State that they should advertise by mail to patients to go and see their doctors. The lay organizations are sending such literature to such patients. If we could do this from a small beginning, such as you have had, with only 42 meetings the first year, increasing to 79 and now within 2 months to 85, certainly within a limited time, say 1 or 2 years, our program for health would go over and be kept right in our own hand.

Another factor: We have been asking them in New York State, in the counties, to do one more thing and that is to impress upon the public the money physicians are losing by charity work. I have asked them to keep one more column in their income tax books, putting down day by day the calls they make or the work they do for which they do not charge. I hope to get before the end of the year reports from some counties which will tell me how much in actual cash these individual men have lost in doing work for nothing, so that when the banker has contributed to that new hospital and it appears in the newspapers of that county, the county society may say—we gave so much in labor to charity, in this community. You never see how much the doctor does by way of charity, and I think in that way we may reach some of the questions that bother us.

I am very glad to have heard Mrs. Taneyhill's paper and I trust that when it is published I may be able to make some excerpts from it and use it in my efforts to get a field secretary appointed in New York State as efficient as Mrs. Taneyhill, in order that we may organize that force which we have neglected perhaps to too great a degree in our own state.

Dr. Sharpless: I have been very much interested in Mrs. Taneyhill's paper and I wish that we could introduce something of that sort into Pennsylvania. Dr. Donaldson tells me that the finances of the state society are now sufficient to warrant us in doing something of that sort and I am sure it will work to a very great advantage to the public as well as to the profession.

I do not wish to be presumptuous in criticizing anything that Dr. Vander Veer has said, but he has emphasized the value to the doctors in making these periodic health examinations. I think that is scarcely the ground upon which we should put it in our public talks. We should make the public understand that it is to the advantage of the people to have these periodic health examinations made.

The thing that most impressed me in Mrs. Taneyhill's report is that the chief difficulty comes from our own profession. It is a sad confession to have to make, and we in the medical profession

can control to a greater extent than any one else that idea on the part of the doctors, and we have a big field for missionary work in talking to our own members and getting them to inform themselves about the important matters that are going on, not for their benefit so much as for the benefit of the public. If the public loses its interest, seeing the disinterestedness of the doctors, their confidence will be gone.

Dr. Donaldson: I stated early in the morning that I expected to gather something from Mrs. Taneyhill's paper and I have not been disappointed but have simply strengthened the impression that I have held heretofore on this very important subject. I have watched with a great deal of interest the progress of a similar program in the Illinois State Society and I know they would not have made the progress that they have without the very valuable assistance of a woman worker whom their Public Relations Committee has employed. We have not felt before in Pennsylvania that we were ready and able to spend the money on a similar program. We have the machinery all ready and I feel quite sure that very soon we will take this forward step. I feel that inasmuch as our members are so indifferent to these various problems of sickness prevention that it behooves those in influential positions in state medical societies to see that the best sentiments of our best members are at least vicariously expressed through some woman representative who may be equally as clever as Mrs. Taneyhill. I think at heart all of our men are in sympathy with the sickness prevention program, but they give it little thought because they have so many trying problems to meet day by day; and their problems, as you know, are never ended, beginning early in the morning and lasting until late at night. When they are away from the influence of hearing a talk or reading an article on the subject they do naturally become very indifferent to it. I think it will be to our advantage, if we are so fortunate in employing a representative who will submerge her own individuality and identity at least to the extent of remembering that she represents the best element of the medical profession in the state. I believe that we can thus, vicariously at least, represent our indifferent membership before the public and, after all, we do want to convey the idea to the public that the county medical society is interested in sickness problems and hopes some day to regain the leadership in the work that has been lost through indifference.

Dr. James E. Sadlier: I think the state of New York has today got something to carry back home. New Jersey is not going to get it all from this meeting. I think this paper of Mrs. Taneyhill's has demonstrated what can be done along the lines she has suggested. I congratulate her upon the splendid work she is doing here in the state of New Jersey and congratulate the Medical Society of New Jersey on having such a person to go out and do this field work. All the time that she was reading that paper and telling of the wonderful things she is doing, I was thinking of some way by which I might influence the Board of Trustees of the Medical Society of the state of New York to supply me with adequate funds so that my Public Relations Committee could have some similar representative working in the counties of New York State and trying to bring harmony out of what is now rather a chaotic condition. It seems to me that this is a great piece of work that is being done in New Jersey and we should carry it on in our other states. I know something of what is being done in Illinois along

similar lines and I know that they are accomplishing a lot of good substantial work in educating the public. The trouble in New York is that about 3 years ago they got a little gun-shy on the female side of the question. In 1927, about 150 men in the House of Delegates registered themselves in the affirmative on the question of having a woman's auxiliary. They passed it on to the incoming president to organize such an auxiliary. I was that unfortunate person. Men usually stick by what they agree to but I found that I was up against a real problem and this time I did not succeed. At the same time, I should be delighted to see something of the same kind carried on in New York that is being done here. I sincerely feel that we should have a woman's auxiliary and have voiced my sentiments a great many times. We should have such a representative as Mrs. Taneyhill to go out and address these women's clubs, schools and lay groups.

Dr. William H. Ross: I have been so much pleased with Mrs. Taneyhill's description of this work that I have been casting about and wondering what I could say by way of endorsement. It is quite a revelation to me. I was exceedingly interested in the comments about the indifference of doctors. Nothing truer has been said today. I think we have in our county a very active medical society. It has done a great many things and when you come to an analysis it is because there have been a few leaders. The rest of the men will go along with everything that is good but if you took such leaders out of the county I doubt very much whether many things would be initiated. One thing that grows out of this discussion is the question of keen men in a community. Doctors are not really indifferent but they are so busy with their major occupation, which one will admit must always be the essential of curative medicine, that other things are incidental. Unless some one stands out and leavens the mass of doctors they will not take a stand for these things, and yet all they need is a leader.

Dr. Sadlier should interview the Budget Committee first. I am not a Trustee any longer but I will promise him right here that I will use my influence to try to get that through. A field secretary would work better in New York under the Public Relations Committee than under any other organization. The Executive Committee is too busy, the state is too large; there are problems coming up from all over the state and you can tell by the size of the problem you have in New Jersey, how much bigger it is in New York. It is not any greater but there is so much more of it. If we had a field secretary working under the Public Relations Committee it would be ideal and I think the sooner we can get that the sooner our influence will begin to grow. I am very glad that I have been here to have heard Mrs. Taneyhill's paper.

Dr. Joseph S. Lawrence: I want to extend to Mrs. Taneyhill my congratulations upon this splendid piece of work that she is doing, and I would like her to know that I have had some personal experience not only in doing but in directing such work. For 2 or 3 years, more than half of my time was given to addressing public audiences. I have addressed groups of 15 to 3000 and have had that satisfaction that she has expressed of seeing reflected in the lay audiences a hearty appreciation of what was being said and of the great future that seemed to be outlined in the way of prolonging life and at the same time the blank expressions from the doctors. This reflection from the physician is a serious matter. New York

State for 10 years has had a field corps of lecturers on public health, not from the state society but from the State Department of Health. I, personally, at one time had 12 lecturers in the field, paid from \$1500 to \$3000, and they devoted their time to this work and some of those people had booked lectures averaging more than 2 a week for the entire year. In addition to that, New York State has had a great deal of the educational material that is sent out by the Life Insurance Companies and the Tuberculosis Association. The Department of Health has conducted extensive educational campaigns. My share was in educating the public against venereal diseases but there was at the same time a corps of lecturers educating the public on the work of the public health nurse, the child welfare program, and a corps of half a dozen lecturers giving demonstrations and discussing with small groups of people the necessity of care and prevention of general diseases. We reached a point that became acute in New York State and which Mrs. Taneyhill has mentioned as encountering. The public was educated far beyond the physician and the physician resented it, and I think rightly so. The public would come and tell the doctor what they wanted done and if he was not prepared to do it they told him what the modern treatment was, that he was way behind. We must bring the medical men along at least as far as we do the public. We can go too far with the public. The medical man is not up on preventive medicine, as we who are in this work are always seeing. We are not fair representatives of the average physician today and it is only because of our contacts that we have grown beyond him. We only need to look at each group that has come into our midst for the first time and see how it develops; and we need only go into the county societies to learn that many of the men do not realize what we are talking about. Perhaps they will criticize what we are saying. But stop and think, we are moving at a rapid pace in the prevention of disease and the busy practitioner, who does not have the time that the women do at their afternoon teas to discuss the modern things that are handed out, should be sympathized with. What we need more than anything else is post-graduate education but, there again, it is the expert who lectures to the ordinary man and he lectures over their heads in many instances. We should be tolerant with those men who are practicing medicine and taking care of our public at the same time.

From my own personal experience there is nothing more pleasing, more stimulating, than to talk to children. I had several women working with me who were wild about talking to the school children on health matters. It has its value but one talk cannot do very much. In order that these things may be permanent in the lives of children they must be repeated often and associated with their general work. We went to the Department of Education and asked for help because we knew that the teachers needed the talk as much as the children, and we finally got the Department of Education to introduce into their training school courses in public health and the teachers will soon be given courses in elementary public health so that they will be able to teach the elements of health to children as they go along.

I think what we need to consider is how to develop a program that will help the practitioner, in a way that will still preserve his self-respect and also give him the elements that he has lacked in his education. Secondly, we need to go immediately to our medical college faculties and get them

to revise the curriculum so that the man who goes out will not be a pathologist principally. Today medical practice is all based on pathology and unless a man finds some pathology he does not feel justified in making an examination. We should be looking for the well man and should study physiology. We should be content to tell the man that he is physiologically well, whereas the patient we are proud of is the one whom we feel we have just pulled out of the grave.

I believe Mrs. Taneyhill will have even more of these sad experiences and the work will become eventually rather discouraging because of this chasm that exists. It is better to devise a program that will help the practitioner to see something beyond the sick that he is called upon to care for.

Dr. Morrison: It is gratifying indeed to observe the reception that this program for the Medical Society of New Jersey and Mrs. Taneyhill's excellent work have received, but I want to remind the group here that:

"The heights by great men reached and kept
Were not attained by sudden flight
But they while their companions slept,
Were toiling upward in the night."

You need in every one of your state societies a half dozen men who are imbued with vision, who will not be easily disappointed, and who will know that after the expenditure of years of effort accomplishments are going to be attained.

When this program was first started in the state of New Jersey, I am free to say that the state medical society had no idea of branching out into the line of work that we have developed in the last 6 years. Dr. Reik was chosen as the Executive Secretary with the chief end in view that he should spend his time in Trenton playing politics, but we soon saw the need of educating the public and some of us saw in the securing of a medical field secretary a means of approaching the public on broad educational lines. I happened to be chairman of the committee that chose Dr. Reik and we were instructed by the Board of Trustees to outline his duties. There was at first considerable opposition to our program. The House of Delegates could not get away from the idea that our proper work was a continuation of the fight against the cults. Some had not vision enough to see that the way to overcome the cults was to see that there would be no place for the cults. We have put this program through and the work became so great that no one man in Dr. Reik's position could have carried it on. That was after 3 years of work. Then we were able to go to the House of Delegates and show them the results of our labor. We said, "We are showing you what the public demands and how easy it is to increase the income of the physician along these new lines; are you going to drop it or will you help us carry it along?" They unanimously gave him Mrs. Taneyhill as an assistant. After a year of her work it again became necessary to secure more funds. We again went to the House of Delegates, showed them the work accomplished and told them that it was necessary, partly to reimburse the state society officers for the actual cash outlay given to this work and partly to provide funds for the carrying out of the program, to have more money, and the House of Delegates raised the dues from \$10 to \$15 and are satisfied with the results.

Mrs. Taneyhill may be discouraged regarding the action of individual doctors. Well, we all get that, but it is the whole group of physicians that

we are attempting to accomplish things for and we must look at it from the viewpoint of organized medicine. If we keep this in view we will find that in a very few years we will accomplish our ends.

We have been greatly encouraged and assisted in our work by the Tuberculosis League in New Jersey and by the State Diphtheria Campaign. One thing that the latter has shown us is that the State Boards of Education and Health in New Jersey have sent representatives to our body to state definitely—and desiring us to carry the message to the profession—that they no longer want to do any clinical work whatsoever in the care of school children, that they are glad of the opportunity to unload that work on the medical profession. Now, I am taking that message this year to every county society. I am showing them the necessity for that work, especially the postgraduate, tuberculosis and diphtheria work, trying to have them organize in every county a group of men who will give toxin-antitoxin and give the Schick tests or turn the child over to this group who will do it. We try to show them that if they do not want to do that now and reap a revenue, they will have no kick coming if the State Board is authorized to do it.

I want to mention one little incident of Dr. Reik's work in regard to handling legislation. We abhor lobbyists and Dr. McBride told the House of Delegates that he would resign rather than have a body of lobbyists in Trenton; that there were higher methods and we should find them. Dr. Reik makes a keen analysis of every bill with reference to how that legislation will affect the public welfare. Last year there was an osteopathic bill up and the leading newspaper, the Newark Evening News, published 2 editorials supporting the osteopaths. We went to the Editor and personally protested against any such point of view. He was told that we were representing not the medical profession but the people in Essex County; and he changed tactics. That is the kind of work that this policy reaches.

I am not as much concerned about our physicians and their opposition to preventive medicine as Dr. Lawrence is. There is no question that preventive medicine is the next greatest move in medicine following the introduction of antiseptic surgery, and if we have to go to our doctors and show them primarily how they can make money let us show them the financial returns from preventive medicine work and it will go over. Now the average doctor is a great deal more intelligent than the average patient and when the patient wants a physical examination it is up to him to make it, and if his intelligence is broad enough he will realize that if he doesn't do it some one else will. The work is here, it is progressing, and we must make the doctor think of these people and prepare himself to make thorough physical examinations.

Now, Mrs. Taneyhill is somewhat discouraged in her work. I think she is looking at her work through blue glasses. As I have directed this work in New Jersey for several years there were many times when I might have done the same thing had I not looked at it in the sunshine. I refused to be discouraged, and when you get the great big broad view from the open spaces you see things and get inspirations that you do not get in a little local field. Mrs. Taneyhill knows from the reception that she received in the House of Delegates last year that her work is keenly and highly appreciated. We know what she is doing and where we are heading and we see with a broad vision

the accomplishments and the results. You know that even Christ was disappointed with what He did and He was a great teacher.

Dr. Philip Marvel: I do not know that I can add anything materially. I must confess that I am somewhat in the position of the Pharisee, while an interloper I have come in hoping to gather some of the crumbs that have been dropped from the table and I have already succeeded in picking up quite a few. I have been particularly impressed with the work that Mrs. Taneyhill has been doing, but I must confess my previous ignorance as to the quantity and the value of that work.

While listening to the various discussions I have felt that this Tristate Conference is a nucleus from which there is an influence that is working very much as an electric current. There is a force generated here, the extent of which you nor no one else can determine. You are setting in motion activities that are reaching out not only in the present but into the distant future and it is far more than you or anyone else is able to determine—the far-reaching influences of these energies. I feel quite sure that the question you are discussing in these meetings, the interests that are imbedded in these questions, are going to develop into richer harvests than you have any idea of. I believe, as Dr. Morrison remarked, that you are solving the question of cults perhaps without thinking about them. It is the education of the public, the far-reaching influence of the women, that is going to bring about changes and realizations that you have not yet dreamed of. If the women will enter into these questions with the spirit that they enter into many other things, the influence of their work is going to be exceedingly far-reaching. As you respect your mother, and as everybody else respects his mother, so the general public, the he-man, has more respect for the work of women than he has for the work of men and there is no question but that you have, whether intentionally or not, in organizing your auxiliary forces touched upon an instrumentality that will reach much farther in its accomplishments than you are inclined at the present time to think.

I want to say, personally, with reference to the paper that Mrs. Taneyhill presented, that to me it was a revelation of the work that she has been doing and it is also a fruit that is giving quick returns to the originators of this Tristate Conference.

Mrs. George N. J. Sommer (Trenton): This is entirely too large a subject for me to cover and I thank you very much for asking me to speak. I have enjoyed hearing these various views and I hope, as the wife of a physician, I shall be helped by them and perhaps in my own sphere I may be able to reach a few people. I think that one big question is—how often does the doctor follow his own instruction, in having a periodic health examination?

Dr. Reik: I want to take advantage of the opportunity to say something about Mrs. Taneyhill's paper, especially about the work that she has been doing, and I would make it particularly clear in the beginning that while it was mentioned several times that Mrs. Taneyhill had started as my assistant and had been working in association with me at the office, this program that she has put on this winter is entirely of her own devising; and that it has been more effective than anything that we had before attempted in the public educational line. You have spoken of your surprise at the extent of the work. Although I was very much in touch with it, I was surprised a week ago to hear of the

number of meetings she has addressed and the number of school teachers and children she has reached during the last 2 months. That work is of a superior character. It is the best of educational work that we carry on. I had an opportunity the other day to hear from the outside something of its effect. I was attending a conference of representatives of state organizations launching a campaign regarding mental hygiene. The President of the Parent-Teacher Association of the state did not know me nor my connection with the state society and quite voluntarily told in my presence of Mrs. Taneyhill's work before the teachers and parents, and she said that it was the most effective bit of work that had been introduced to the public through that channel; and she was asking that organization to get some one like Mrs. Taneyhill to help in launching the mental hygiene program.

Dr. Sadlier and Dr. Ross both spoke of the field secretary under the direction of the Public Relations Committee; that is the way the work is done here. We continue to call our committee the state *Welfare Committee* which is only another name for your *Public Relations Committee*. Mrs. Taneyhill's and my work, outside of the Editorship, are conducted under the direction and guidance of, and always by reporting to, the *Welfare Committee* of the state society, and I think that is the proper place for it.

Dr. Lawrence has spoken of the necessity of carrying the education of the physician along with education of the public, and that is extremely important. The public has in some directions gotten considerably ahead of the physician. That is why we introduced a new department in the *Journal*. Remember, the public is not getting all this instruction in medical matters from us. It is getting a good deal from the most important magazines of the country. There is scarcely an issue of *Harpers* magazine for the past year that has not carried a medical article. Occasionally the *Saturday Evening Post* carries one, and that has been far-reaching. I conceived the idea that it must often be embarrassing for the physician to find that the patient knows something more about the modern scientific aspect of medicine than he does, so we are trying to improve that condition somewhat by carrying reviews or abstracts of books that were designed for the public and are very extensively read by the public—such as "Why We Behave Like Human Beings" and "Why We Misbehave". Hoffman's "Pursuit of Health" is a masterpiece and is being read by the public just as Lambert's new book, "Prominent Medical Men", which has just appeared on the market, will be read. It will have a much wider reading by the public than by the profession. We are trying to give these to the profession by reviews of the books in the *Journal*, and to the public by broadcasting.

We have revised our scheme for "radio health talks" this year. On Friday evenings at 8.30 we are making use of Hoffman's, Haggard's and Lambert's books. A week ago we spoke of Aesculapius, this week on Pythagorus, and next week we will speak on Hippocrates. We are making use of the device that the General Electric and various other organizations are using. I heard one give a brief account the other night of Byrd's flight over the south pole, introductory to an advertisement, so we are trying to give a story that will hold the attention of the listener by telling something of the life work of these physicians of the ancient period and then ending with a paragraph or two on the question of how to keep well.

I hope they are reaching the physicians as well as the laity.

We have been fortunate in securing the coöperation of the State Boards of Health and Education. Mrs. Taneyhill brought about the relationship with Dr. Ireland, the new Medical Director of the Board of Education, and he is more than pleased with the way this work has gone on and will make plans for increasing it next year if we can supply him with what he wants. He is quite conscious of the fact that the teachers as well as the pupils need this instruction. I think the most effective part of it for the future will rest with the children. We cannot do much with the generation of my age, nothing with the generation back of that, but what we can get over to the children will be useful.

Does this pay? Yes, the profession can very well afford to do it. Regarding the number of immunizations in the state, for instance, I did not work out mathematically what the income had been to the various physicians, yet it is a fair assumption that the doctors of this state reaped at least a quarter million dollars last year in the increased work from immunization alone. I think it is bread cast upon the waters that is coming back a thousand fold. One of the county secretaries told us recently that if the members of the profession of the state would count up what they were taking in each year, additional to former receipts, from one thing alone, that is the profits resulting from the Workman's Compensation Law of this state, they would find that they could afford to pay much higher dues to the state society. It should not be looked at from the point of view that preventive medicine is taking business away from the doctor; it is bringing him business, and it is a very profitable investment for him.

Mrs. E. C. Taneyhill (Closing): I am very anxious to dispel this impression that I have apparently given out—that I am discouraged. I do not feel discouraged in this work. I am up against a concrete question when I go to a community, that I wonder if the medical profession appreciates? I am asked, to whom can I go to get an examination? I do not know what to say. As Dr. Lawrence says, when you educate a community ahead of its medical officers what are you to do? I, of course, know that the American Medical Association is requesting the medical schools to stress this subject of preventive medicine in their classrooms. I know that Dr. Martin's plan for having hospital facilities available to local physicians is having some attention, but that is rather abstract when it comes to this or that woman who wants to know where to go to get an examination, and if they are not satisfied, then all that I have said is lost. I do not think that you can ever educate your older men, who are interested in the curative side, to take up preventive work, but I think that if you get the school children interested along with your medical students, that you might in another 10 or 15 years have a gradual readjustment that would work itself out.

A school teacher told me that she did a good piece of work in the mountain region of West Virginia merely in the matter of cleanliness. They had no standards at all along that line. She said she did not have to wait until the second generation, but 5 years later, when the younger brothers and sisters were coming along, what she had said had percolated into the homes. So we may not have to wait until the next generation.

A layman said to me when these radio talks were launched and when my work began: "That is the cleverest piece of propaganda that has ever

been put over." I do not know where propaganda ends and education begins. I do not know whether I am going to be regarded as carrying on your propaganda. New Jersey has the reputation of being a nice compact little state and it is easily covered. When I hear of you doing the same thing in Pennsylvania and New York, it makes me rather appalled because I do not know how you would ever get any one worker to cover such territory.

I have wondered whether the county medical societies might consider it advisable to propose a group to give the periodic health examinations in each locality. That would be a tremendous help to the people and it would also keep them from going to the Life Extension Institute for their examinations; it would also give me an answer.

In answer to Dr. Lawrence's point that I might get carried away in talking to the children, of course an audience of children is very responsive. They are all right on the ground, the turnout is fine, they come there to learn and are very receptive; but I have found the teachers extremely appreciative and responsive also, and I have tried to make it plain that my talk is only by way of underscoring what I know they are teaching in the school room. They have thanked me, saying that I have given them support and encouragement and that they will continue to bring up in the class room the points that I have made. Some of them have said that the idea was all new to them, especially focal infection. I think this should be a direct message from the state society and then the teachers could have that to work on through the rest of the year.

Another point is that a field worker, such as you have discussed here today, would in almost every instance, it seems to me, be a link between the medical men who are so busy and so pre-occupied, and these lay health organizations with which you wish to cooperate, to a certain degree. That was shown to me quite unexpectedly in several instances. As to whether it should be a woman or not, and as to the attitude of medical societies especially toward lay women, you remember probably the story of the little boy who heard a sermon in church upon a text from Job: "Man that is born of woman is of few days and full of trouble." When he tried to tell his mother about it he said that the minister preached on "man is born, and in a few days he will have trouble with a woman". I am afraid that is the idea of the men who resent a woman taking this position and that is the attitude that they foster. I think this is not a matter of sex, but of temperament and brain, and should be so regarded. It seems to me that where a woman is mixed up in any difficulty with an organization the men all give Adam's old alibi. I think there are just as many discussions that happen between men where no women are concerned. I don't think you will ever find a man who will put up with the small discomforts and trials and do the little "dirty work" that this job entails.

BUSINESS SESSION

Dr. Vander Veer said that, according to the usual custom, New York would be glad to have the meeting in that state, probably the last week of January.

Dr. Reik said that the question of the program would be left to the officers of the New York State Society.

Dr. Morrison thought it would be agreeable for the next program to follow the advice suggested by Dr. Ross. He thought these programs should

be well thought out in advance and given a little more time; that if the members of this group know what the program will be they will be better able to discuss it. Dr. Morrison thought it would be a good idea when the Pennsylvania State Society entertains this group again to have Dr. Patterson present a paper on the Ideal Medical Practice Act, saying that is something that must be faced soon, as the acts are being revised all over the country and should be approached from the proper point of view; Dr. Patterson's remarks today were very fundamental and we could well devote a conference to that subject.

Dr. Reik suggested that it might be considered feasible to have the principle paper, at least, distributed to members in advance of the meeting, but, he said: "As a secretary of many years' experience, I doubt whether that is feasible, even though it is desirable. It would get us away possibly from having the discussion wander away from the main topic. If they knew what was being presented for discussion perhaps the discussion would stick more closely to the point."

I would call attention also to the fact that this is the beginning of the fifth year of our work and your Secretary has served for 4 years, having assumed the office once and been elected the other years."

Dr. Morrison: He was elected permanently.

Dr. Reik: You may offer a motion for reconsideration.

Dr. Sommer: I take it that the Program Committee of New York State will be able to prepare the program for the next meeting.

Dr. Hammond: I move that a vote of thanks be extended to the New Jersey group for the hospitality given us at this meeting.

This motion was unanimously carried.

Dr. Hammond: I move that the question of secretaryship be laid on the table until next meeting. Adjournment at 4.20 p. m.

Henry O. Reik, M. D.,
Secretary.

The Woman's Auxiliary

(The President of the Woman's Auxiliary to the Medical Society of New Jersey, Mrs. James Hunter, Jr., of Westville, submits the following suggestions for consideration of all the women belonging to this organization—EDITOR.)

Auxiliary Plans

ARTICLE II—OBJECTS

"The objects of this Auxiliary shall be: (1) through its members, to extend the aims of the medical profession to all organizations which look to the advancement of health and education; (2) to assist in the entertainment at all American Medical Association Conventions; (3) to promote acquaintanceship among physicians' families that fellowship may increase; (4) to do such work as may be approved from time to time by the American Medical Association."

The above is a very important part of the new constitution of the Woman's Auxiliary to the American Medical Association. It was adopted July 10, 1929, after much careful thought, and has been given to us as our guide.

I. "Through its members to extend the aims of the medical profession to all organizations which look to the advancement of health and education."

That in itself is a colossal task and I shall respectfully call this to the attention of those who say "What is there for us to do?" You are all conversant with the efforts of the Medical Society of New Jersey to put across an organized health program. You all know that Mrs. E. C. Taneyhill is the Field Secretary. As auxiliary members we have been asked to arrange appointments for her. This year has been provided for—how about next? Many clubs arrange their meetings months ahead. Now is the time to make appointments for her and then do everything to advertise them so at all times she will carry the Medical Society's message to large representative groups.

Another task allotted us—spread the gospel of good health, the doom of quackery, by seeing that Hygeia, the official health organ of the A. M. A., is in every physicians' office, in every library, every rest room; in short, wherever groups of people congregate.

While we have been given this work, our compensation is most liberal—out of every subscription at \$3, we are permitted to retain \$1.25. Could one ask for a more effective, more dignified method of making money for the county unit? Even dues could be minimized so as to suit all and then the members build up a strong fund in this way.

Do you know that for 50c you may obtain a splendid copy of "Pasteur"? Why not present a copy in the name of the Auxiliary to the teachers of hygiene in your vicinity, or place it in the local libraries. Just a thought. Mrs. Russell A. Shirreffs, 348 Elmora Avenue, Elizabeth, is Chairman and will supply you with necessary information and abundant literature. Try her.

II. "To assist in the entertainment." Already Mrs. William Freile, of Hudson County, is planning for the "big night" at the June Convention at Haddon Hall in Atlantic City. Plan early to be present every minute of the Convention.

III. "To promote acquaintanceship among physicians' families, that fellowship may increase." The accompanying letters are self-explanatory.

October 24, 1929

Dear Mrs. Hunter:

Through Dr. Dan S. Renner, Medical Director and Superintendent of the Skillman Village for Epileptics, I have learned of the work of the auxiliary of the New Jersey State Medical Society and of your interest in extending social contacts among the families of physicians of the various public institutions.

This is such an important and thoughtful plan on your part that I hasten to extend to you a cordial invitation, and through you to the local auxiliaries throughout the state, to visit the public institutions and to give the advantages of close personal contacts with the auxiliaries to the physicians and their families who, in many instances, are residing in these institutions.

I feel sure that you will find a most cordial welcome from the medical director and superintendents of all the public institutions in the state.

Very truly yours,

Department Institutions and Agencies,
(Signed) William J. Ellis, Commissioner

October 28, 1929

My dear Mrs. Hunter:

I am sorry that there has been a delay in replying to your letter. However, I have been waiting for a copy of a letter which Commissioner Ellis wrote to you.

I mentioned to him the fact that you were starting out on a trip and felt that you would like the auxiliaries to visit the Institution. He was so pleased with this suggestion of yours that he told me he was going to write to you requesting that you extend an invitation to all the auxiliaries to visit the public institutions at their convenience.

I have also taken this matter up with our Board of Managers and they wish me to extend an invitation to the auxiliaries to pay this institution a visit and become acquainted with our particular institution and the work that we are attempting to carry out. We will be glad to have you plan this at your convenience. I believe the better time will be in the spring. However, that is entirely up to you as we will be glad to have you at any time.

Very truly yours,
(signed)

Dan S. Renner, Superintendent

January 2, 1930

Dear Mrs. Hunter:

I am delighted to have your interesting letter and I am hastening to send you a list of the various institutions which I think the auxiliary would enjoy visiting.

I think you would find it particularly helpful to arrange a visit to the Glen Gardner Sanatorium. Arrangements could be made, either through me or directly with Dr. English. There we have an especially interesting piece of work through the facilities afforded by the new Children's Unit, which cares for about 100 children. There is an amazing and impressive degree of successful treatment of these children. Of course, the work at Glen Gardner is outstanding among the sanatoriums of the country, and I would be very happy indeed to arrange a visit to that institution.

One of the most interesting visits that could be made would be to the North Jersey Training School at Totowa, in Passaic County, about 3 miles from Paterson. Here we have a group of over 400 high grade mentally defective girls, who are being trained for parole under proper conditions. They are being taught habits which will assist them in making an adjustment upon release from the institution. They are also being given training in industrial and vocational activities. I am sure you would enjoy visiting this one of the newest of the state philanthropic enterprises.

Clinton Farms, which is a reformatory for women, now cares for all adult women offenders, as we have recently moved to it the 32 women who formerly were kept at the state prison in Trenton. This work is under the supervision of Miss Edna Mahan and a splendid Board of Managers, who, I have no doubt, would be glad to welcome you. This institution is located in Hunterdon County, not far from the Glen Gardner Sanatorium. I am sending you a copy of our handbook, which describes briefly this and other institutions.

The South Jersey members would be particularly impressed with a visit to the Vineland State School, of which Mr. George Thorn is Superintendent, and to the Vineland Training School, which is an internationally famous school for training mental defectives. While this is a private institution, the state and counties support a large number of children under the advantageous conditions prevailing at this institution, of which Professor E. R. Johnstone is the Director.

Those who are interested in mental health problems will also want to visit the largest state institution, the Greystone Park State Hospital at Morris Plains, of which Dr. Marcus A. Curry is Medical Director and Superintendent; and the Trenton

State Hospital, of which Dr. Henry A. Cotton is Medical Director.

I will be very happy to assist you in any way that I can in arranging for these visits.

Cordially yours,

Department Institutions and Agencies
(signed) William J. Ellis, Commissioner

Could anything be more cordial? The lovely spring days will be with us ere long. Plan now—invite chairmen of welfare committees, see that transportation is arranged and the treat is yours. Three objects will be attained: (a) Self-education along lines that are most dear to every physician's heart and because of that should be of intense interest to their families; (b) better fellowship as a result of the social contact; (c) such visits will encourage not only the physician in charge but will hearten the corps of helpers who work so quietly, so efficiently.

Each unit should make at least one pilgrimage a year.

Your president has asked that each county arrange one meeting during the year to honor the mothers of physicians. Where this program has been carried out, reports have been most gratifying.

The annual dues of each State Auxiliary shall be 25 cents for each of its members, payable to the National Treasurer on or before March 31.

Our Auxiliary is not growing numerically as it should. One factor against it has been collection of dues. We had placed November 31 as final date. Now that the Auxiliary of the A. M. A. has extended its time limit until March 31, let us conform to this and extend ours. The dues are the only tangible evidence of membership so send them along at once. Then you will be a part of the organization composed of 9000 enthusiastic, far-seeing women known as the Woman's Auxiliary of the American Medical Association.

Executive Board Meeting

Reported by Mrs. W. Blair Stewart

There are times when we are especially proud to be doctors' wives, and one of these times was Thursday, January 9, when 90 women, belonging to the county medical society auxiliaries of this state, sat around the festive board in the Banquet Hall on the tenth floor of the Bamberger Building, in Newark, and partook of a most delectable luncheon. There is always a fraternal feeling among doctors' wives, and this feeling of friendliness and good fellowship was markedly prevalent during the afternoon.

Mrs. James Hunter graciously presided at the business meeting following the luncheon. The President stressed our endeavoring to secure new subscribers to the Hygeia magazine, remembering that a percentage of the subscription goes into the treasury of the auxiliary from which the order comes; to read the State Medical Society Journal; to assist on welfare boards; to arrange for one meeting a year to do honor to the mothers of physicians who are members of the county societies; and also, to make pilgrimages to state institutions.

The guest of honor for the day was Mrs. J. Newton Hunsberger, President-Elect of the American Medical Association Auxiliary, who brought a very delightful message from our neighboring state, Pennsylvania; being herself from Norristown. Her thoughts left with us were: that auxiliaries promote good fellowship; that we must urge the doc-

tors to attend the county society meetings; that in organization there is strength; live not in the past but in the future; assist our state public health officers. "The auxiliary has arrived and I know it will succeed." "Education obliges us to think straight, and does away with superstitions."

It was a great pleasure, and an inspiration, to have Mrs. Hunsberger with us, and we will be indeed fortunate in having a national auxiliary President so near to our home societies.

Essex County had 40 members present, but of course that was the home county of the place of meetings.

Miss Julia Teimer, niece of Dr. and Mrs. Teimer, who is often heard on WOR radio programs, sang most artistically: "Blue Danube Waltz", "The Night Wind" and "Mandy and the Spiders".

The success of this meeting should be a great inspiration and incline everyone to be present at the next meeting, and especially at the state medical society auxiliary meeting June 11-14, 1930.

Atlantic County

Reported by Mrs. Maurice Chesler

The Woman's Auxiliary to the Atlantic County Medical Society held a regular meeting Friday evening, January 10, at the Chalfonte Hotel. In the absence of our President, Mrs. J. T. Beckwith, Mrs. J. F. Massey presided. Mrs. Massey welcomed 2 new members, Mrs. E. G. Shreve and Mrs. Elmore Hess. The minutes of previous meeting were approved as read and letters of thanks were read from the recipients of the various donations given during the holidays by our auxiliary.

Mrs. W. Blair Stewart then gave a very fine report in detail of the Executive Board meeting at Newark on January 9, which was enjoyed by all.

There being no further business, a motion was made to adjourn after which bridge was enjoyed.

Those present were: Mrs. J. F. Massey, Mrs. Joseph Poland, Mrs. Robert A. Bradley, Mrs. Lawrence A. Wilson, Mrs. W. Blair Stewart, Mrs. Samuel L. Salasin, Mrs. Louis Rosenberg, Mrs. Charles Hyman, Mrs. Samuel Winn, Mrs. Sidney Rosenblatt, Mrs. Daniel Reynor, Mrs. Elmore Hess, Mrs. E. G. Shreve, and Mrs. Maurice Chesler.

Bergen County

Reported by Mrs. C. N. Dezer

The meeting of the Bergen County Society Auxiliary was held January 14, at Mrs. Morrow's home in Bergen Pines. The meeting was called to order by our new President, Mrs. Michael Sarla. The minutes of the previous meeting were read and approved. There were 25 members present.

Mrs. Dezer gave a short talk about the luncheon given by the Executive Board of the State Society Auxiliary at Newark, January 9, 1930. Nearly all the counties were well represented; Mrs. Sarla, Mrs. Kilts and Mrs. Dezer attended from this county.

Mrs. Morrow introduced the speaker, Dr. Julius Levy, Director of Child Hygiene of the state of New Jersey. He told the history of work the organization is doing and urged the establishment of "Baby Stations" in all communities.

Miss Miller outlined with an interesting chart some of the work done by the organization in different counties.

After some general discussion a delightful tea was enjoyed by all.

Camden County

Reported by Mrs. T. P. McConaghy

On Tuesday afternoon, January 14, the Woman's Auxiliary to the Camden County Medical Society held a very short business meeting, after which the afternoon was devoted to entertainment of the mothers of doctors of the Camden County Medical Society; with a tea at the Camden Woman's Club. The afternoon was considered a complete success, notwithstanding the very stormy weather which prevented a few from attending.

The mothers who, as Mrs. Hunter, our state President, said, honored the auxiliary by their presence instead of being honored by the auxiliary, were: Mrs. Lee and Mrs. L. B. Hirst, of Camden; Mrs. E. R. Diebert, of Haddon Heights; Mrs. H. Jack, Collingswood; and Mrs. J. E. Van Sciver, of Haddonfield.

Mrs. James Hunter, Jr., of Woodbury, gave a short talk, and Mrs. J. M. Hunsberger, of Norristown, Penna., President-Elect of the National Auxiliary, gave a talk on "Why an Auxiliary?"

Mrs. Lewis R. Dick, President of the New Century Club, Philadelphia, gave some most interesting readings.

Miss Albertine Hundertmark, of Camden, contralto soloist, was accompanied by Mrs. Frank Neutze, of Haddon Heights.

Mrs. A. Haines Lippincott arranged the delightful program.

Mrs. O. W. Saunders, Chairman of the Auxiliary Hospitality Committee, proved a charming hostess. Assisting on Committee of Arrangements were Mrs. G. B. German, of Merchantville; and Mrs. Thomas P. McConaghy, of Camden. Mrs. Levi B. Hirst, of Camden, and Mrs. H. Jack, of Collingswood poured. Mrs. T. H. Lewis, of Colwick, received, and Mrs. R. S. Gamon and Mrs. I. E. Diebert, of Camden, and Mrs. G. F. West, of Colwick, served.

Others attending were: Mrs. A. J. Casselman, Mrs. E. G. Hummel, Mrs. L. B. Wilson, of Camden; Mrs. W. J. Scruggs, Collingswood; Mrs. A. B. Davis, Mrs. L. L. Glover, Mrs. E. R. Hirst; Mrs. T. B. Lee, Mrs. E. C. Pechin and Mrs. J. E. Roberts, of Haddonfield; Mrs. William C. Raughley, Mrs. William Westcott, of Berlin; and Mrs. H. F. Westcott, of Clementon.

Gloucester County

Reported by Mrs. Henry B. Diverty

The Woman's Auxiliary to the Gloucester County Medical Society met at the Woodbury Club Thursday evening, January 16 at 9 o'clock, as the guest of the Gloucester County Medical Society to enjoy the motion pictures by Park Davis and Company of how biologic products are made. Previous to the entertainment a short business meeting was held. The president, Mrs. Elwood Downs in the chair. There was a fine representation of membership. Every committee reported progress, with special mention of committee on "Hygeia" subscriptions.

Our State President, Mrs. James Hunter, of Westville, was among our number and by request gave a résumé of her visits to 12 of our State Auxiliary Societies since her election to office in June.

Sussex County

Reported by Mrs. Leo B. Drake

A meeting of the Woman's Auxiliary to the Sussex County Medical Society was held at the home of Dr. and Mrs. R. R. White, Jr., Franklin,

New Jersey, on Tuesday evening, January 7. It was decided to send Hygeia to the Hamburg High School for 1 year. Arrangements are being made for engagements for Mrs. E. C. Taneyhill, in towns where she did not speak last year. The Treasurer reported 19 paid up members for the year 1929-1930, which is 100% membership. There were 12 members present at this meeting.

Before the meeting we listened, with the gentlemen, to a very interesting talk by Dr. A. B. Choppell, of Middletown, New York, on the subject—"A Sick Baby of a Month". Dr. White spoke on "Per-nicious Anemia". A general discussion followed.

After a business meeting of both societies, Mrs. Thomas L. Pellett sang several selections very beautifully, Mrs. Lamar Voorhees gave a clever reading, and Dr. F. J. Scott played the piano. Refreshments were served.

Union County

Reported by Mrs. R. A. Shirreffs

The Woman's Auxiliary to the Union County Medical Society met Wednesday evening, January 8, in the Nurses Home of the Elizabeth General Hospital.

Accepting gladly a special invitation from the officers of the County Society, the women joined the men and had the pleasure of hearing Mrs. E. C. Taneyhill present her lecture on "Pasteur".

At the business meeting which followed directly after the lecture, regular business was transacted, with Mrs. H. V. Hubbard, the new President, in the chair.

Three new members were welcomed and enrolled—Mrs. Walter Day and Mrs. C. A. Hoffman, of Plainfield; and Mrs. D. J. O'Brian, of Elizabeth.

The next meeting will be held in April.

Mrs. Chas. H. Schlichter, of Elizabeth, and Mrs. Fred A. Kinch, of Westfield, acted as hostesses.

County Society Reports

ATLANTIC COUNTY

John Irvin, M.D., Reporter.

The regular monthly meeting of the Atlantic County Medical Society was held January 10 at the Chalfonte Hotel, Dr. Homer I. Silvers, president, was in the chair. Minutes of the December meeting were read and accepted.

Dr. W. B. Stewart, Chairman Public Health and Sanitation Committee, reported that the Visiting Nurses' Association had asked him to appeal to the physicians of the city to co-operate with them in establishing a parental clinic in the poorer sections of Atlantic City; the nurses will visit some of the doctors and make a personal request for aid in this work.

Dr. W. E. Darnall, Chairman Library Committee, reported the addition of numerous new volumes to the Medical Library.

Dr. J. H. Marcus, secretary, reported the receipt of a card from Mrs. Garfield C. Burrows, gratefully acknowledging our expression of sympathy and the flowers.

Dr. John M. Fisher, Associate Professor of Gynecology at Jefferson Medical School, was then introduced by Dr. Silvers, and presented a paper, of which the following is an abstract:

Cancer of the Uterus, a Preventable Disease.

That cancer in all its forms is on the increase despite efforts of the medical profession has been conclusively demonstrated by those who have made studies of this disease.

Treatment of uterine cancer has been discussed altogether out of proportion to those more important phases of the subject—causes and prevention.

Cancer of the uterus occurs at the menopause, and generally in women who have borne children; it is comparatively infrequent in the third decade of life and is rarely seen under the age of 30. It is more frequent than cancer of the breast and attacks these 2 organs oftener than the sum total of the disease in all the organs of man combined.

A very large portion of the profession, and practically the entire lay public, still appear to be indifferent to the fact that cancer of the uterus is largely a preventable disease. Whatever the contributing etiologic factors, the potent fact remains that a benign lesion contributes the immediate local tendency to malignancy, as suitable soil is a necessary prerequisite of the disease. Remove the apparently precancerous lesion and cancer will not occur.

Cancer of the uterus attacks the cervical segment of the organ in from 90 to 95% of cases, and almost always develops in old lesions of childbirth. Extent of the tear is an important point. A deep tear may heal with ease and without complications, while a comparatively small one often will exhibit a permanent lesion with resulting hypertrophy, eversion, endocervicitis and erosions with a tendency to cancerous degeneration. In this connection, it is interesting to note that malignancy rarely has origin in an obstetric scar.

A study of carcinoma of the cervix shows that in 10% of cases such tumors occur in a mucous polyp, or in endocervicitis and, in extremely rare instances, have developed after a dilation and curettement. Because the lesion looks benign, the malignant change may escape detection. Irregular bleeding is, as a rule, the first symptom.

Considering prevention of carcinoma of the uterus, care of the mother after delivery is of paramount importance, and yet it is at this stage where altogether too many fail—not for want of knowledge but through lack of individual attention to details. Infections, repair of lacerations, prevention of aggravating displacements any one or all of which if neglected, play an important part in the development of malignancy. If women who have borne children would submit to periodic pelvic examinations by conscientious practitioners there would be less chronic morbidity of the menopause and a great step forward would be taken in the prevention of cancer.

One of the most fatal of traditional fallacies is that menopausal hemorrhage is physiologic. This is still held true by a great many family practitioners. Final cessation of menstruation should be gradual, and menorrhagia or metrorrhagia, however slight, is almost invariably the result of local disease demanding careful attention. Acceptance of this truth by the profession at large would lead to earlier diagnoses of cancer and save innumerable lives that are now sacrificed.

Obstetricians should advise all mothers to undergo a thorough pelvic examination 2 months after delivery.

Dr. Fisher discussed the various lesions of the cervix and appropriate treatment with a view to cancer prevention.

DISCUSSION

Drs. Darnall, Conaway, Carrington, Senseman, Andrews and Poland, and Drs. Sewell and Corson of Bridgeton participated in the discussion, all earnestly approving the prevention doctrine preached by Dr. Fisher.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

Regular monthly meeting was held at Hackensack Hospital, January 14. The minutes of the last regular and last annual meetings were read and approved.

Dr. Pitkin, reporting for the special committee on credit bureau, advised adopting an experimental contract with the New Jersey Medical Protective Bureau, which is herewith appended. After a short discussion this was adopted.

The order of business was suspended and Dr. Cooper introduced the speaker of the evening, Dr. Lawrence K. McCafferty, of New York, who gave an interesting talk on "Cosmetics—Their Uses and Abuses". This was illustrated with lantern slides.

Doctor Wolowitz told of the work of the Public Relations Committee and the radio program.

Doctor Snedecor presented the annual report of the secretary, describing the growth of the society during the year.

The president, Dr. George M. Levitas, presented the cup, which he had donated, to James M. Paradise who won the golf tournament.

The resignation of Drs. Charles F. Buckley, of Edgewater, and Howard M. Potter, of Leonia, were read and accepted.

The resignation of Dr. John Riordon, of Rutherford, was read and society made him an honorary member.

Dr. Joseph Toal, of Ridgefield, was elected to membership, and the application of Dr. S. F. Johnson, of Rochelle Park, was read.

The following named were elected to office for the coming year: President, E. W. Clarke; Vice-President, J. C. Morrow; Secretary, S. T. Snedecor; Treasurer, M. Sarla; Reporter, C. Littwin.

Delegates to State Medical Society: Levitas, Morrow, Chas. Knox, McCormack, Freeland, Proctor, Snedecor, Hallett, Corn, Finke, A. Liva and Vroom.

Alternates: Sarla, King, Clarke, Littwin, Hitzmann, Gilady, Payne, A. W. Ward, Knapp, J. F. Bell, Trossbach and Pitkin.

For member of State Society Nominating Committee—A. Liva.

Dr. Levitas made a short farewell speech, in turning over the chair to Dr. Clarke, who, in turn, made the following speech in accepting the President's gavel:

"I wish to express my deep appreciation of the honor which you have conferred upon me by electing me as your President. However, modesty forbids my accepting your generous applause other than as a token of respect for the office which I now hold. I feel that I am peculiarly fortunate in having as my Vice-President such a prominent member of the profession as the Director of our County Hospital, because any task which I do not feel like performing I can easily put off for 'the Morrow' and feel sure that it will be attended to. With the present Secretary, if there is any speech that I do not care to make, I feel that he will be

only too delighted to handle that for me and justify the hopes placed in him by his Alma Mater, the Y. M. C. A. School of Prolific Persiflage. The increase in dues should serve to keep our Treasurer busy; will materially reduce the income tax of the profession of this county; and furnish our Reporter with a margin to write home about in place of his own which had "tape-worm" and died in a Wall Street institution this past Fall.

I am sure that I have much to live up to in striving to emulate the record of the retiring President, who set an example for prompt and regular attendance at meetings, as my one accomplishment during my term of ease in the Vice-Presidency was to preside at one meeting from which Dr. Levitas was called by professional duties.

With its increase in dues come increased responsibilities of the society to its members. They should receive increased benefits comparable to the increase in dues. Is the money being appropriated for ethical publicity getting results commensurate with the amount spent? Are the "write-ups" in the local papers being read by the public? Would a questionnaire sent to subscribers to the Bergen Record in different districts tell us anything of their effectiveness? I think that these questions should be answered in some way during the coming year and the results brought to notice of the members so that the society at large (not only those who attend the meetings) may be given a chance to voice opinion as to the real value of this program. I know that there are some men who think it undignified to even indirectly take cognizance of the various cults by calling attention to ourselves in the newspaper. They feel that the results of medical and surgical practice, if properly applied, should speak for themselves.

Another thing which I would like to see reinstated, and this was called to my attention by our Reporter, is a greater participation in our scientific programs by our own members. I do not refer to a discussion of papers read by men imported from the larger centers but to the fact that there must be a great many interesting and unusual cases which our members could report at meetings, after the reading of the main paper of the evening. There must be many men in the county who would like to be heard on different subjects in which they are particularly well versed or have done special work. This would serve to bring before our members what some of our men are doing, and perhaps keep some referred work at home instead of escaping to the neighboring city of New York. Such meetings would add a personal to our academic interest in the scientific sessions."

Doctor Snedecor urged that Dr. Clarke be given the assistance of active committees, and outlined the work of the entertainment, program and membership committees. He also asked for permission to have an annual list of members published. This was approved, with the amendment of Dr. Pitkin to include a list of those men who are not members of the society.

Dr. Levitas spoke at length on the last "annual dinner" and also on his disapproval of the Public Relations Committee publishing the names of radio speakers. After discussion, his motion on this subject was denied.

Dr. Van Dyck asked for information on the amount of money being spent by the Public Relations Committee.

Meeting adjourned at 11 p. m.

BURLINGTON COUNTY

Roscus I. Downs, M.D., Reporter

A regular meeting of the Burlington County Medical Society was held at the Fairview Sanatorium on January 8, 1930, President Emlen Stokes calling the meeting to order at 1 p. m. with 22 members and guests present. The guests included Drs. J. Bennett Morrison, Secretary of the state society; Henry W. Cattell, now of Burlington; Bunsanski, resident physician at Fairview; E. C. Steinsieck, of Burlington, dentist to the sanatorium; and Mr. Robert Cox, head of our county insane asylum. The minutes of the previous meeting were read and approved.

Dr. Reik's letter was read, stating that Mrs. E. C. Taneyhill, the Field Secretary, would be available for Burlington County between April 28 and May 2. Dr. Mulford spoke of her excellent paper at the Tristate Conference, which will be published in the February Journal; both the Pennsylvania and the New York state society officials were much impressed with her work and are considering a similar program. Mrs. Taneyhill is the spokeswoman for organized medicine in New Jersey. Her diplomatic manner in presenting medical topics before high school children, parent-teacher associations, and women's clubs is a big aid to the cause of public education in medical matters.

Dr. Tracy reported the success of our recent pageant, the cost of which was \$404.

Dr. W. S. Sutherland, of Mt. Holly, was unanimously elected to membership. Dr. Henry W. Cattell, a retired physician, member in good standing of the Philadelphia County Medical Society, was received as a member in our society. The application of Dr. Louis E. Vateri, of Burlington, for membership was received and referred to the Board of Censors.

A letter from the prosecuting attorney, George M. Hillman, was read. He said that it was not lawful to order intoxicating liquors for a patient except that obtained from a prescription. This was referred to the Board of Censors for further conference with Mr. Hillman.

Dr. Robert E. Imhoff read his paper—"An Historic Sketch of Pneumothorax"—and Dr. Newcomb demonstrated the technic of pneumothorax.

Dr. Morrison spoke on the relations of medical ethics to industrial medicine and contract practice, and outlined the postgraduate lecture courses of the society which are nearly ready for presentation.

Following an excellent course dinner at the sanatorium, the exceedingly profitable meeting adjourned to meet again in March.

CAMDEN COUNTY

Robert S. Gamon, M.D., Reporter

The January meeting of the Camden County Medical Society was held in the Camden City Dispensary, January 14, with 51 members present. The Business Committee transacted the society's business prior to the Scientific Program, which began promptly at 9 p. m. Dr. Edward Weiss, member of the Medical Staff of the Jefferson Hospital, gave a most interesting paper on "The Proper Diagnosis of Kidney Disorders". There was very liberal discussion opened by Drs. Lippincott, Davis and Goldstein.

Dr. George Dublin, 21 North Fifth Street, Camden, was elected to membership.

Dr. Hyman I. Goldstein, of Camden, has re-

turned after 6 months spent in research and study in the clinics of Europe.

The Program Committee was authorized to arrange a "Clinical Night" to be held in one of the local city hospitals; the staff will present the program.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The society met as the guest of Newcomb Hospital at Vineland. The efficient supervision of the hospital was apparent on every hand. President E. H. Van Deusen conducted the meeting with grace and suavity. He, with Dr. John H. Moore, a classmate, were the oldest practitioners present.

Dr. Charles M. Gray, of Vineland, was elected Censor for the term of 3 years. A committee was appointed to consider the series of lectures for county societies to be given by Rutgers, providing 25 doctors subscribe to meet in a central location with prominent specialists who have been chosen to lecture.

A committee was appointed to revise the Constitution and By-Laws of the society, so as to conform to that of the state medical society. The regular committees for the year were appointed by the President. There were a goodly number of visiting delegates from Salem, Gloucester and Cape May Counties.

A communication was received from the County Dental Society, requesting a joint meeting in the near future. The resignation of Dr. H. S. Foltz, who had left Vineland owing to the illness of Mrs. Foltz, was accepted.

Dr. John Cooke Hirst, of the University of Pennsylvania, son of the long-time Professor of Obstetrics of that institution, addressed the society on the subject of "Amatal as used in Obstetric Practice". This is a new drug affording complete relief from the pains of this experience. It was discovered through its value in operating on dogs. It affords more relief than drugs formerly used, and is perfect in its results in 70% of the cases in which it is used. Delirium requiring restraint occurs in some patients. No delirium is seen in surgical cases. This objectionable feature is being eliminated as fast as possible and it is hoped this will displace other drugs. Its use with morphin is contraindicated. It is especially helpful in eclamptic convulsions; also it has afforded complete relief in the spasms of tetanus and chorea. It reduces the blood pressure and temperature and when used to produce anesthesia in surgical cases, its effects are perfect.

Dr. E. L. Eliason, of the University of Pennsylvania, read a paper entitled "Recent Studies in Acute Pancreatitis". This is a condition every surgeon meets sooner or later. The solution of the cause of this affection of the pancreas is as remote as ever; 232 cases have been reported in detail. The symptoms are those of acute indigestion, and it is probable that many cases of this character pass as such. Morphin affords no relief. The patient freezes in a position of moderate relaxation. Pain is referred to shoulders and back; vomiting is present. There were 6 recoveries in 40 cases. The laboratory is scant aid in diagnosis. Immediate laparotomy is indicated; complications are frequent; hemorrhage, erosion of blood vessels, ashenia and anorexia. The etiology is not understood. The mortality is 51%. Treat the condition as acute cholecystitis.

ESSEX COUNTY

Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

E. LeRoy Wood, M.D., Secretary

Many very interesting cases were shown before the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey at its clinical meeting Monday evening, January 13.

Dr. George J. Holmes, of Newark, showed 3 patients upon whom he had operated. For the first, a lady of mature years, he had removed an "Epithelioma of the Orbit Involving the Eyeball". Radium treatment had been tried previously. The eyeball was fixed, being included in the growth. The cautery knife was used, incising down to the bone $\frac{1}{4}$ in. outside the growth, and removing with the growth the os planum of the ethmoid and roof of the maxillary antrum; no frontal sinus was found, the bone being deficient and the growth attached to the dura. The wound is granulating and appears healthy. The postoperative problem of lining the cavity by a skin graft was discussed.

The second patient, an 11-year-old boy, had a "Cleft of the Hard and Soft Palate" which was closed by 2 operations in March and December 1929 after failure of previous operations in 1927 and 1928. The patient was present and the members inspected an exceptionally fine closure of the cleft.

The third patient was a man, aged 38, who had undergone a complete bilateral operation for pansinusitis, with good result, after having endured repeated partial extenterations of nasal polyps.

Dr. Holmes was complimented on the brilliant results attained in these 3 difficult cases.

Dr. Wood presented a patient upon whom he had operated for serious complications of "Chronic Otitis Media". A young lady, 14 years old, first seen in consultation because she had a discharging ear and temperature of 105°. Her history revealed that she had been victim of an aural discharge since infancy. Seven days previously she had an earache which lasted 2 days and stopped. She was very sick and noncommunicative. Examination showed a chronic purulent otitis media of right side, with tenderness over the mastoid and above the ear, and a stiff neck; totally deaf in the affected ear; no spontaneous nystagmus nor reaction of that ear to cold caloric. Spinal fluid was clear, under pressure, and gave 9 cells to the cubic millimeter.

She was operated upon that afternoon, and a large cholesteatoma found which had enlarged the antrum so that the horizontal canal was exceptionally prominent, though it seemed intact. The tegmen antri was deficient; the dura at that place being covered with granulations. When the lateral sinus was uncovered it appeared gangrenous. It was uncovered downward to the turn toward the bulb, and split open until bleeding was encountered. Packs were applied and the wound left open. The jugular was not tied because of the patient's poor condition. The temperature dropped to practically normal and remained there for 10 days, with the exception of one chill and elevation on the third day. On the twelfth day she had a chill and rise of temperature to 104° and on the following day I ligated her internal jugular vein above the facial, made a skin fistula, and revised the previous operation. Jugular bulb was exposed; posterior it was found that the gangrene of the sinus wall had extended backward. The sinus

was split back, and broken down septic clot was sucked out of its lumen. Suction of the last $\frac{1}{4}$ in. of clot released free bleeding. Packs were applied to the lumen of the sinus and the dressing replaced.

The girl did not make a dramatic response to this second operation, so blood transfusion was given, but daily chills followed by high temperatures continued. We felt that we had not reached the end of the phlebitis, so another operation was required. The scalp wound was cut backward beyond the midline, and the sinus was exposed by drilling the bone away from behind forward, starting over the longitudinal sinus and torcular Herophali and working toward the area of the previous operations. The sinus at the torcular appeared normal, but it was incised and bleeding obtained; then the sinus was split forward to the former openings and dressings applied. The temperature dropped to practically normal and the subsequent course has been practically uneventful.

The last operation was November 16, and on Christmas Day, this poor girl received an unfortunate gift of a facial paralysis on the same side. During the last few days she has been having a little headache and with the facial that probably indicates I will have to look for some osteomyelitis about her labyrinth soon.

"I present the case because of the great extent of the disease, and because of the lesson I learned always to uncover well behind a phlebitis, and not to suck a clot out of the lumen because we may get bleeding before reaching the end of the disease."

Dr. Orton showed a patient who had recovered from a "Transthyroid Pharyngotomy for Carcinoma". C. F., aged 60, male, white, married, complained of sore throat and swollen glands of the neck. Three weeks prior to October 15, saw a doctor about his throat who said the soreness was due to tonsils. He continued to get worse and glands in neck on right side became enlarged, swallowing was painful, and there was pain which radiated to right ear and right side of head. At times had expectorated some blood.

Examination revealed ulceration on base of tongue involving epiglottis aryepiglottic fold and overgrowth of tissue in glosso-epiglottic fold; extension upward to palatoglossal muscle; abduction and adduction normal; Wassermann negative; blood pressure 136/78. Radiograph of chest negative for metastasis. Sputum negative.

Entered hospital October 23, and under rectal anesthesia on October 28, a transthyroid pharyngotomy was done. Discharged from hospital November 27. Pathologist reported that specimen showed extensive carcinomatous growth of tongue and pharynx.

Dr. Norman W. Burritt, of Summit, showed a case of "Hyperkeratosis of the Lingual Tonsil".

Dr. Elbert S. Sherman, of Newark, reported 3 cases of "Concussion Injuries of the Eye".

Sometimes a direct blow upon the eye may show nothing anteriorly but have a severe contra coup injury to the posterior part of the eyeball.

The first case was an avulsion of the optic nerve and hole in the macula, in a man who had been struck on the eye by a sand-core weighing about 1 lb. which a fellow workman had thrown at him. He was knocked down and unconscious for several hours. There was no external evidence of injury, save that the pupil was dilated and fixed. Ophthalmoscopically there appeared a large white in-

regular disc twice as large as the disc should be; no vessels visible on the disc; the blood vessels seemed to dip under this disc at its periphery. A hole was seen in the region of the macula. The diagnosis of avulsion of the optic nerve was made. Sir William Lister reported a few cases of this type in which diagnosis was made at autopsy.

A second case of concussion injury occurred to a caddie who was struck directly on the eyeball by a golf ball in flight. Examination revealed only a rupture of the choroid. This patient had been blind since childhood in the other eye, which greatly increased the seriousness of the injury.

The third patient was a man of 28 who had fallen off a scaffold striking the top of his head. After the immediate recovery, he was unable to work and eye examination showed a hemorrhage of the vitreous with retinitis. An injury at the top of the head did not seem the proper explanation for the hemorrhage into the vitreous. Later, perusal of the records at the Eye and Ear Infirmary showed that the man had sought treatment there prior to this fall, because of a direct blow on the eyeball by a fist. This man had sustained a concussion injury from the punch on the eye.

Dr. A. Charles Zehnder reported a case of "Sympathetic Uveitis". An Italian boy, 12 years old, received on May 11, a penetrating wound of the cornea, iris and lens of the left eye with a jagged stick. He was treated at the Infirmary from May 11 to 16, and then left and was treated by an outside physician.

At the time of discharge from the Infirmary his vision was R. E. 20/30, L. E. 20/70. When he returned, at end of 6 weeks, his injured eye was suffering a severe attack of uveitis, with complete loss of vision; and the right eye was suffering with a mild attack of sympathetic uveitis. He was advised to have the injured eye enucleated, and this was done. His teeth and tonsils were badly diseased, so the tonsils and 3 badly abscessed teeth were removed. The usual treatment of atropin, hot boric acid, etc., with milk injections, was given, with no improvement to the left eye. Verhoeff's treatment was then started; this consisted in large doses of diphtheria antitoxin, 25-30 c.c. daily for 1 week. At the end of the week the patient stated that he could see light better. He developed a rash, due to the large doses of horse serum. The deposits on the anterior surface of the lens diminished, the circumcorneal injection almost disappeared, the iris looked clearer, and better and we thought he was improving. The second week the antitoxin was not used. The third week the antitoxin was given daily; with no improvement. The fourth week he received the usual treatment minus the antitoxin; the eye gradually became worse. The fifth week he again received daily injections of antitoxin; the eye did not improve. The sixth week usual treatment minus antitoxin. The seventh week daily injections of antitoxin, with no improvement. The eighth week he received the usual treatment with thyroid extract in addition; with no improvement. At this time the pupil was entirely filled with membrane and the patient could only perceive light.

At present, the irritation in the right eye is gradually subsiding, there is dense pupillary membrane, which we intend to remove later. He can only perceive light. This patient received 340 c.c. of Newark Board of Health diphtheria serum over a period of 8 weeks, with only a moderate urticaria at the end of the first week.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

At the regular monthly meeting held January 6, at Woodbury Country Club, a motion picture was exhibited by C. F. Moire, of Parke, Davis and Company, illustrating the manufacture of serums and vaccines.

The film took the members of the Medical Society, first to the laboratory and then to the biological farm, where the animals are kept, and then to the research laboratories. The various methods pictured are the result of years of research and experimentation.

A new constitution and by-laws, conforming with those of the state organization, were adopted.

At the request of Dr. James Hunter, of Westville, who resigned, Dr. E. E. Downs was nominated and duly elected to the State Medical Society nominating committee.

A representative of the Camden Nurses' Registry attended the meeting and outlined the benefits of the plan to physicians and patients.

Among those in attendance at the meeting were: Drs. Durcan Campbell, James Hunter, Ralph Holmshed, William Brewer, S. F. Ashcraft, Oran A. Wood, I. I. Ulmer, E. E. Downs, E. S. Black, H. Nelson, B. A. Livengood, A. L. Sinexon, Shute, F. Harris Underwood, Horace Foder, C. A. Bowderson, I. W. Knight, Paul M. Pegau, Butler, and H. B. Diverty.

Delegates present were: Drs. Emma Richardson, Camden; Atkins, Salem County; Church and Crowe, of Ocean City.

HUDSON COUNTY

Edward G. Waters, M.D., Reporter

The regular monthly meeting was held January 8 at the Cartaret Club, Jersey City.

The first speaker was Dr. Jesse Bulowa, Clinical Professor of Medicine at Bellevue Medical College, whose topic was "Modern Therapy in Pneumonia, with Special Reference to the Use of Serums". After briefly mentioning other phases of therapy and empiric drugs, he stated that the use of serum in Type 1 pneumonia was so specific that any deaths need an alibi. Since Types 1 and 2 constitute one-half of all cases, Polyvalent serums 1 and 2 should be given, always pending determination of type. Parke and co-workers have isolated 20 types of pneumococci with specific differences, which Dr. Bulowa uses in serum determinations. A series of statistic charts were shown illustrating the differences in cases treated with and without serum. It is believed that it is never too late to give serum unless the patient is almost in *extremis*, although the earlier given, the better the results. A refined serum is used, high in antibody content, since the effect depends on the number of units given, and untoward reactions, such as chills, are obviated with the purified serum.

Sabin's method of typing is used; an intraperitoneal injection of sputum is made into a mouse and after 3 hours the peritoneal exudate is mixed with rabbit serum and microscopic agglutination is made.

The next speaker was Dr. Alvin Barrach, Assistant in Medicine at Columbia Medical School, who presented the "Role of Oxygen in Pneumonia". He gave an historic review of the development of oxygen administration in pneumonia, showing the various nose pieces and nasal catheters first used. Plates depicting the progress in mechanical de-

velopment of oxygen-giving apparatus were shown. A 40-50% concentration of oxygen is administered in pneumonia in order to maintain the essential function of the lung and to prevent development of symptoms which militate against the patient's chances of recovery.

The papers were discussed by Drs. Von Deesten, B. Schwarz, and A. Jaffin.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Reporter

The regular monthly clinical conference was held at the hospital Monday evening, December 2, under the chairmanship of Dr. Lucius F. Donohoe.

Dr. Yaguda, of Beth Israel Hospital, Newark, gave an illuminating talk on the methods used in that institution for obtaining autopsies. The usual obstacles are: (1) the physician himself—sometimes being afraid the family will think he is not sure of his diagnosis or that he had failed in treatment. (2) The hospital intern—who usually is not interested unless he can be made to feel that it is part of his medical education, or can be induced by cash payment to procure autopsies; Beth Israel pays \$5 each. (3) The relatives—who must be treated sympathetically, and generally by private conversation with that one who seems to be most influential. (4) The undertaker—who is most difficult to deal with but who has been at times justified by the incompetent manner in which autopsies have been performed.

Dr. Yaguda stated that by careful persistent work, they had succeeded at Beth Israel in raising the percentage of autopsies from 2% in 1927, to approximately 70% in 1929.

Dr. Finger, speaking for Dr. Brooke, reported a case of fracture of the skull resulting from an automobile accident. A boy, age 7 years, was admitted in an unconscious state with a report that he had received a blow upon the right side of his head. There was bleeding from the nose and right ear. Pupils were widely dilated and did not react to light; an area of contusion over the right frontotemporal region made it difficult to feel the bone in that area; there was a complete fracture in the right parietal region; heart sounds were regular and of good quality with a rate of 60; blood pressure 106/70; temperature 101°. Radiograph showed the fracture in the right parietal, and fracture of the femur in the middle third. Spinal puncture brought fluid under slight pressure and containing blood. Treatment was symptomatic for 9 days and then decompression was performed on the left side, where a linear fracture of the parietal bone was found with depression of a wedge-shaped piece and an epidural clot. Death occurred 9 days after the operation, and autopsy showed extensive softening and disintegration of the brain under the fracture regions.

Dr. Brooke discussed the modern treatment of cranial injuries, with special reference to conservative treatment as compared with immediate operative procedures.

Dr. Feinberg, speaking for Dr. Chayes, reported a case of a diabetic patient, 56 years of age, who also had a tuberculous infiltration in the upper portion of the left lung. Use of insulin rapidly cleared up the diabetic condition and permitted discharge of the patient from the hospital, as the tuberculosis was causing little or no discomfort.

A second case reported by Dr. Feinberg was that of a young girl, age 17, admitted with typical symptoms of acute lobar pneumonia but who de-

veloped pleurisy with effusion and tuberculous meningitis and expired as the result of the latter condition 5 weeks after admission to the hospital.

Dr. Brooke, reverting to a discussion of uterine tumors, started at a previous meeting, reported 6 cases where the growth was sufficiently large to cause pressure on the rectum and bladder. Considering treatment, he believes that x-rays and radium are better than surgical operations at or about the menopause; before menopause there is always danger of endocrine disturbance.

Dr. Seasmith, discussing *Dr. Brooke's* report, remarked that his experience with x-rays and radium had been mostly good but that he considers them dangerous remedies except when applied by a specialist. He had seen some bad after-effects from burns.

Jersey City Hospital Staff Meeting

Joseph Binder, M.D., Reporter

The regular monthly meeting of the Medical Staff of the Jersey City Hospital, held Thursday evening at 9 p. m., December 12, 1929, in the Out-Patient Department of the Hospital, with *Dr. S. B. Sprague*, presiding.

Dr. Doran: Gave a brief summary of his trip to Italy and then showed motion pictures of *Dr. Putte's* clinic in Bologna, also pictures of operations performed there, preparations of casts and artificial limbs.

Dr. Bauer: Presented 3 cases of spinal cord lesions of different types.

Case 1. Female, 65, admitted November 26, 1929, with history of good health, until 6 a. m., when she felt weak, collapsed, and became unconscious for 10 minutes. There was no movement in the upper and lower extremities. Sensation of numbness in the extremities. Previous history, negative except for vague pains since August 1923. Weight, 200 lb. Pupils fixed, contracted. Complete flaccid paralysis lower extremities with lost motion. B. P. 120/70. Bladder retention with negative urinalysis. Diaphragmatic type of breathing. Blood count, R.B.C. 2,700,000; W.B.C., 10,200; Polys. 80%. Wassermann negative. Spinal fluid under increased pressure; no globulin and slight trace of sugar. Evidence of sclerosis of vascular system.

Diagnosis, transverse lesion of the cord between the fifth and sixth cervical vertebrae, probably due to thrombosis of spinal vessels.

Case 2. Female, 29, married, gave history of sharp, intermittent, shooting type of pain in right hip and shoulders since October 29, 1928. Pains beginning in the left side September 1, 1929, with history of bladder retention.

Pupils irregular; fundus showing slight clouding of optic disc. Loss of all reflexes and Babinski. Foot and toe drop. No abdominal reflexes on right side, but hyperactive on the left. Pressure on jugular elicited no spinal fluid flow when spinal tap was done. Urine, negative. Blood, secondary anemia. Blood Wassermann 4 plus. Spinal fluid at first negative, then it became positive after provocative dose. Under antiluetic treatment, blood and spinal Wassermann tests became negative.

This case showed cauda equina involvement probably giant tumor.

Case 3. Female, 42, married, admitted November 19, 1929. Patient in good health until 1 year ago when she complained of soreness in the back; 3 months later soreness all over back with sensation of burning; 1 month after that, paralysis of lower extremities, incontinence, absence of sensation in extremities, cough and night sweats. Last

period, 9 months ago; amenorrhea. Examination showed pupils irregular with right larger than the left; spastic paraplegia with flexion at hip and knee; marked bilateral Babinski; secondary anemia. W.B.C. 10,800. Spinal fluid no pressure, pale yellow, no sugar and slight trace of globulin.

Diagnosis of transverse lesion of cord at third dorsal vertebra as result of extramedullary pressure due to neoplasm at that level.

Dr. Woelfle: Presented a case of ruptured ileum; traumatic. Male, Italian, 18, struck in abdomen by handle bar of motorcycle. No shock; complained of pain in abdomen. Rigid, especially over right lower half of rectus muscle. No abrasion or contusion on the abdominal wall. Patient vomited rather frequently and finally vomitus contained blood. Posterior wall of cecum showed a hemotoma and the ileum showed a transverse tear about 12 in. away from the ileocecal valve. End-to-end anastomosis done. Except for evidence of pneumonia in both lung bases, the patient did well and finally recovered and was discharged on the eighteenth day postoperative.

Dr. Christian: Presented a case of "Polyserositis" in a young negro boy 10 years of age. There was marked abdominal ascites, pericardial effusion and edema. A series of radiograms showed gradual diminution of the pericardial effusion under tapping and the more rapid absorption of the pericardial effusion under ammonium chloride and salargen administration. This patient also had a +4 Wassermann.

Meeting adjourned after lively discussion of the above presentations.

HUNTERDON COUNTY

Barclay S. Fuhrmann, M.D., Reporter

The January meeting of the Hunterdon County Medical Society was held at the Warford House, Frenchtown, on January 21.

The following were present: Drs. F. H. Decker, M. H. Leaver, I. T. Topkins, A. A. Heil, M. H. Harmon, A. L. Gramsch, B. S. Fuhrmann; Visitors F. G. Scammell, M.D., I. R. Boothby, M.D., and Mr. H. Hansen.

The meeting was called to order by the Secretary in the absence of the President and *Dr. Decker* was elected President Pro-Tem. *Dr. Gramsch* arrived later to assume the chair.

The minutes of the meeting of October 22, 1929, were read and as there were no corrections or amendments they were declared approved.

The application for membership of *W. E. McCorkle*, of Ringoes, who was recommended by *B. S. Fuhrmann* and *A. L. Gramsch*, was read and referred to the Board of Censors.

Communications from the Sussex, Atlantic and Hudson County Societies were read and ordered filed.

The secretary reported that he had been in communication with several companies which make bronze tablets and the average price seemed to be about \$25 per sq. ft. and that a definite price could be given when the lettering had been decided upon.

It was regularly moved, seconded and carried that a committee, consisting of Drs. English, Gramsch and Fuhrmann, be appointed to purchase a tablet to be erected at Glen Gardner Sanitarium, in memory of *Dr. O. H. Sproul*, and the same to be ready for unveiling at the July meeting of the society.

On motion, regularly seconded and carried, the above committee was authorized to spend a sum not exceeding \$125.

Dr. F. G. Scammell then addressed the meeting on the subject of the "Increasing Frequency With Which Myringotomy Is Being Performed in Our Hospitals".

The subject was then generally discussed.

An interesting discussion was started when question was raised as to the greater prevalence of colds among the males of our communities, than among the females, who according to "Dame Fashion" are very much more thinly clad.

After giving Dr. Scammell a rising vote of thanks for his remarks and advice, a motion prevailed that we adjourn to the adjoining room where dinner was served.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society held its regular meeting January 8, at the Carteret Club, under the presidency of Dr. Vanneman.

Dr. W. J. Swingle, of the Department of Biology, Princeton University, delivered an interesting address on "Experimental Studies on the Internal Secretions of the Sex Glands". With the aid of many colored slides, Dr. Swingle illustrated changes that take place in both the male and female organs following transplantation, castration or ovariectomy.

Dr. Scammell, Chairman of the Committee on Revision of By-Laws, submitted a resolution, with recommendation that it be incorporated in the By-Laws, as follows:

"This society believes that contract practice, except such as this society shall sanction as reputable under existing compensation laws, is at variance with the code of medical ethics, derogatory to the dignity of the profession, as well as unfair to the individual. Therefore, the name of any member receiving or renewing such contract shall, *ipso facto*, be dropped from the roll.

Any member having or considering a contract under existing compensation laws, shall present a certified copy of the contract to the secretary of the society. Such contract shall be presented to the society at a regular meeting and be referred to the Board of Censors. Any member failing to present such contract to the secretary will be dropped from the roll after due action by the society.

Any physician, engaged in contract practice, making application to the society for membership, shall present with his application a certified copy of his contract."

Dr. Sommer of the Board of Censors wished the activities of the Board defined as follows: "The Board shall consider such contract and report back to the society at the following meeting."

The transfer of Dr. Ellen C. Potter from the Passaic County Society was read and accepted. The application of Dr. Harold L. Davis was read and referred to the Membership Committee.

A communication from Dr. H. O. Reik, relative to contract practice, and to the meeting of the Passaic County Society to be held January 16, at which time a symposium on "Medical Ethics" will be the subject for the evening, was read.

An acknowledgment of a floral spray was received from the family of Dr. Pantaleone.

MIDDLESEX COUNTY

Medical Section Rutgers Club

John H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of Rutgers Club was held on Wednesday, January 22, at the Alumni House, Queens Campus. About 30 members and guests were present.

The meeting was called to order at 9:00 p.m. by Dr. Klein who presided in the absence of Dr. Schureman.

The speakers of the evening were J. S. Whitehill, D. D. S., and Norman Whitehill, D. D. S., of New Brunswick, whose subject was "Malformation of Dental Arches, Early Diagnosis, and Method of Treatment", illustrated with models and lantern slides. The paper brought out the necessity of taking the child to the orthodontist early, and the importance of the first teeth. There was a short discussion by some of the guest dentists.

Drs. Rowland, Brown, Brady and Forney were in charge of the entertainment, and provided a very pleasant repast.

PASSAIC COUNTY

Frank W. Ash, M.D., Reporter

The January meeting of the Passaic County Medical Society was held at the Health Center, Paterson, January 9, at 9 p. m.; our new president, Dr. James P. Morrill presiding. The minutes of the December meeting were approved as read.

The application of Dr. John De Rosa was read and ordered sent to the Board of Censors for investigation.

The Censors' report on candidates for election was read and their names were voted upon. The following men were elected to membership: Henry V. Weinert and Altan C. Leibowitz, Passaic; and Alfred Widetsky, of Paterson. The application of Dr. Martin Nemirow was not voted upon because 2 of the censors wanted more time for investigation.

Further regular business was suspended, by a motion from the floor, and the speakers of the evening were introduced.

Dr. McBride, who is just recovering from a severe accident, made his first public appearance since his injury. The doctor told the society how happy he was to be able to be out again, and especially that the State Society officers were giving the program.

Dr. John H. Bradshaw, of Orange, was introduced and spoke upon "Ethical and Unethical Medical Contacts". The paper was excellently received by the Society. Dr. Morrison followed with a paper on the "Ethics of Industrial Medicine". Dr. Reik closed the symposium with an excellent contrast of "Professional versus Business Ethics". These papers were discussed by Drs. Todd, Dingman and Marsh. The editor has promised to print these papers in the March Journal.

Dr. J. B. Morrison spoke on the State Society's program of postgraduate study to be given throughout the state. Two courses have been planned: (1) Medicine. (2) Traumatic Surgery. These courses will each consist of 8 lectures, will cost the individual doctor \$30, and will be given by instructors from Cornell and N. Y. U. Medical Schools. The State Society would prefer the County Society to arrange the time and personnel of those taking the course, and also be responsible for the financial arrangements. It will be necessary for

25 doctors to attend to make each course successful at the price mentioned. Rutgers College has offered to help with the clerical work without charge.

The meeting adjourned at midnight.

SUSSEX COUNTY

Frederick P. Wilbur, M.D., Reporter

A joint meeting of the Sussex County Medical Society and its Woman's Auxiliary was held at the residence of Dr. R. R. White Franklin on Tuesday, January 7, 1930.

Dr. A. B. Chappell, of Middletown, N. Y., was the guest of the evening and read a very interesting paper on "The Sick Baby of One Month". The discussion was led by Dr. Pooley and Dr. Pellet.

Dr. R. R. White gave a short address on the treatment of "Primary and Secondary Anemias".

The auxiliary then adjourned to another room for a business meeting, while the County Society transacted its business. Dr. F. P. Wilbur reported the transactions of the meeting of the Secretaries and Reporters of the State Medical Society.

It was unanimously decided to form a "public relations committee" and the president appointed Drs. Cole, Coleman and Wilbur on this committee.

Bimonthly meetings were decided upon and Drs. Pellet and Quirk were appointed to arrange the program for the next meeting.

A motion was then carried indorsing Dr. Blase Cole, of Newton, as the candidate from Sussex County for Third Vice-President of the New Jersey State Medical Society, and instructing the county member of the nominating committee to place his name in nomination at the proper time.

A motion was carried to loan the Historical Society the "Minute Book" containing the complete minutes for the past 100 years.

The meeting adjourned.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

The regular quarterly meeting of the society was held at the Elizabeth General Hospital, January 8. Dr. H. H. Bowles of Summit presided over the largely attended meeting.

Nine new members were admitted, as follows: Drs. Charles F. Card, Rahway; Milton E. Lowell, Westfield; William Addleman, Garwood; Robert M. Miller, Summit; Michael Seidler, Hillside; Carey L. Harrington, Linden; D. J. O'Brien, David P. Liebermann and Harry T. Kemper, of Elizabeth.

A resolution was unanimously adopted endorsing the action of the County Board of Freeholders in providing a fund of \$5000 to aid the Psychiatric Clinic at the Elizabeth General Hospital. This clinic is under the direction of Dr. Michael Vinciguerra.

The Woman's Auxiliary was meeting in another part of the hospital, and the ladies were invited to sit with the society to hear the address of Mrs. Ethel C. Taneyhill, who gave an illustrated lecture on the "Life and Work of Louis Pasteur". Mrs. Taneyhill covered the life work of Pasteur in her address, speaking especially of his discovery of the treatment for rabies and the eradication of diseases among cattle and silk worms

in France, which were destroying both industries for the nation. She also told of his exhaustive experiments and final success in discovering the bacteria which was causing the wine of France to sour, and thus saving that industry from ruin. Refreshments and a social hour brought the meeting to a close.

Summit Medical Society

W. J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, December 30, 1929, with the president, Dr. Meigh, in the chair, and Dr. Burritt entertaining. There were present 22 members of the society, and the following guests: Drs. Sutphen and Gibb, of Morristown; Meyer, of Bernardsville; and Jamison, Miller, Sly and Thomas, of Summit.

A communication was read from Mrs. H. D. Distelhurst, who has a local Registry for Nurses, offering the service of a Physicians' Registry, where telephone calls could be adequately handled when the physician is out of town, at a cost of \$3.75 a month. Dr. Moister, who with Dr. Bensley was appointed a committee to study this question at the meeting held November 27, 1928, reported that on careful inquiry only 6 physicians had desired such a registry, and that it did not seem practicable to form one at the present time.

The paper was read by Dr. Burritt on "Chronic Sinusitis as a Focus of Infection". He described the varieties of sinusitis and the routes of infection; through (1) direct contiguity, resulting in meningitis or brain abscess; (2) through the blood or lymph stream, causing asthma, arthritis, etc.; (3) absorption of toxins, with resulting malnutrition; and (4) aspiration or swallowing of pus, followed by lung abscess.

Chronic sinusitis is more prevalent in children than is generally recognized, and may result in infections of the respiratory tract, pyelitis, glomerular nephritis, enteritis, cyclic vomiting and other conditions. Many cases of asthma in adults clear up only after drainage of a chronically infected sinus.

The paper, comprehensive and suggestive, was discussed by Drs. Sutphen, Sly, Krauss, Byington, Jamison and others.

Clinical Society Elizabeth General Hospital

The regular monthly meeting of the Clinical Society of the Elizabeth General Hospital was held on Tuesday evening, January 21, Dr. Michael Vinciguerra, president, in the chair.

Dr. Stephen T. Quinn reported an interesting case of ovarian cyst of multilocular type, non-malignant, occurring in a girl of 22. The mass was of tremendous size, but produced no symptoms except those due to its weight.

This case was discussed by Drs. Green, Shangle Stein and Brokaw.

The first paper of the evening was by Dr. James S. Green, whose subject was "Perineorrhaphy". The paper was illustrated by lantern slides. It was discussed by Drs. Beisler, Stein, and Shangle.

The second paper was read by Dr. Stephen T. Quinn, dealing with "Radium in Gynecologic Conditions", and was discussed by Drs. Vogel and Green.

After adjournment of the business session, a collation was provided by the hospital Women's Auxiliary.

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NEWER METHODS OF TREATMENT IN THE ATTACK ON SYPHILIS*

JAY F. SCHAMBERG, M.D.,
Philadelphia, Pa.

Great advances have been made in the therapeutic attack on syphilis within the past 20 years. First came the Wassermann test, which is the most valuable biologic test that the medical profession possesses. I rather feel that Wassermann got an excessive credit when this was termed the Wassermann test, and Bordet, of Belgium, received too little. In fact, abroad they call it the Bordet-Wassermann test.

Then came the discovery of the spirochete by Schaudinn, followed by that remarkable piece of work by Ehrlich and his associates in 1910, the elaboration of salvarsan and its use. Around 1921-22 came introduction of the use of bismuth by Levaditi and Sazerae. These, I think, constitute the very important therapeutic advances in our attack on this very widespread disease.

Let us for a few moments compare the value of some of these agents. The old "606" is the most actively therapeutic of the arsphenamins ordinarily in use, although some reservation must be made with respect to silver arsphenamin; "606" is perceptibly more therapeutically active than neo-arsphenamin. Yet we find this strange situation: that neo-arsphenamin, not only in the United States but

throughout the countries of Europe, is used 10 times more frequently than arsphenamin. This is for the very definite reason that it is much more time-saving, that it does not require neutralization, that it may be given in more concentrated form, and that when a good product is used there is less liability to reactions. There are discriminating dermatologists throughout the United States and to some extent throughout Europe who still use the old "606", but both in hospital and in private practice, the neo-arsphenamin, the so-called "914", has in considerable measure supplanted the arsphenamin proper.

When we use neo-arsphenamin we must realize that we are using a substance which is primarily less stable than arsphenamin, much more liable to undergo oxidation, and therefore certain precautions must be constantly before us. We must never use very hot water. I have seen the use of very hot water precipitate a number of severe reactions. Furthermore, when the drug is dissolved the solution must not be exposed to the air for any period of time because it readily undergoes oxidation and acquires an increased toxicity. In my own clinic we make up the solution, immediately draw it into small glass syringes, and keep these together for treatment of successive patients.

Then, too, it must be remembered that neo-arsphenamin is a less stable product as it issues from the laboratories than arsphenamin. I am making a plea in the meeting on the Western Coast this year for examination by the United States Public Health Service of the therapeutic activity of neo-arsphenamin. Of course, there is an examination for tox-

* (Read, by invitation, at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 14, 1929.)

icity but that is not sufficient. I am quite sure, from personal observation and laboratory experiments, that some preparations of neo-arsphenamin which are placed in our hands are almost therapeutically inert and this explains why, from time to time, we may see mucous patches or other obvious manifestations of syphilis that do not disappear under the use of repeated doses of this drug. So, while neo-arsphenamin is the preparation dominantly in use, it possesses certain disadvantages.

It is a very disconcerting matter to have a patient in the early stage of syphilis develop a reaction which requires an interruption of treatment. It always means valuable time lost because we are endeavoring in early treatment to kill off the spirochetes in the body as rapidly as is consistent with safety. I fear that some physicians in their zeal attempt to kill off the spirochetes without sufficient regard for safety of the patient and, if the facts were all known, the list of mortalities from the therapeutic attack on syphilis by means of the arsphenamins would constitute a very heavy one. I have known many lives abbreviated by too vigorous assault with these drugs.

When we come to treat chronic syphilis the situation is quite different. By *chronic syphilis* I mean cardiac syphilis, renal syphilis, and hepatic syphilis, more particularly. Here our goal and object and aim are different. We do not want to kill off all the spirochetes rapidly. We do not care particularly whether the Wassermann becomes negative. That is a purely secondary consideration. The point is to get rid of the presented symptoms and treat the patient in such manner as to prevent recurrence of these or allied symptoms. Whether the patient is ever cured in the sense of every spirochete in the body being killed is a matter of secondary consideration. So the purposes we have in cases of acute and chronic syphilis are entirely different.

Many other drugs, modifications of the old arsphenamins, have been introduced. I might refer to silver arsphenamin and silver neo-arsphenamin. These drugs are used much more extensively in Europe than in the United

States, perhaps for the reason that they are better made there than here. Silver arsphenamin is the most efficacious therapeutic agent in syphilis that we possess, if we judge by the effect on syphilis in the experimentally infected rat. It is used chiefly abroad in the treatment of neurosyphilis and other very resistant forms of the disease.

Neo-arsphenamin, of course, has the advantage of ready solubility and of injection in more concentrated form. A modification of neo-arsphenamin known as sulpharsphenamin has come into very general use in the treatment of syphilis and its great advantage is that it is better tolerated by the muscles than any other form of arsphenamin. It has a disadvantage in that it is more likely to produce eruptions, particularly purpura, than any other of the arsphenamins but it may be given anywhere from 200 to 400 milligrams, occasionally more, injected into the muscles of the buttock, with a minimum degree of pain.

After all, I have long felt, and I think it has been fairly definitely established, that drugs, particularly metallic drugs, administered by the intramuscular route are therapeutically more active than those given by the intravenous route, for the reason that the drug remains longer in the tissues. When we inject arsphenamin or neo-arsphenamin into the blood, it remains in the blood a very short period of time. It is precipitated into the liver, into the spleen, the kidneys, the bowels and elsewhere, and a considerable part is eliminated within the first 24 hours through the urine and the bowels. But when we have the drug deposited in the muscles, it remains there for a longer period of time and there is then daily a resorption of part of the drug; so, the effect is, if anything, better than when introduced by the intravenous route. Sulpharsphenamin is valuable particularly in cases where it is difficult to administer any drugs into the veins by reason of smallness of the veins, lowness of blood pressure, adiposity of the patient, or other similar causes.

Another drug which has come into use relatively recently is a preparation known as acetarsone. It belongs to the arsenic acid series and is given by mouth in tablet form. It has an affinity for the nerve tissues and, therefore,

must be used with care lest one produce an arsenical poisoning. Its use is being tried out. It has produced negative Wassermanns in quite a number of series of cases. It has the great advantage that it can be taken peroral instead of by injection; because there are persons, highly susceptible subjects, in whom we cannot inject any drugs.

Another preparation that has been brought into use within recent years is tryparsamid which, as I recall, was elaborated on by Jacobson and Heidelberger, of the Rockefeller Institute, and the clinic of Lowenhart and his associates in the University of Wisconsin. This drug is particularly of value in neurosyphilis. It has no value in early syphilis. It does not destroy spirochetes but in the treatment of early cases of paresis, and perhaps in cases of locomotor ataxia and some cases of cerebrospinal syphilis, it is a remedy of distinct value. It has the great advantage that, used intravenously, it rarely, if ever, gives rise to reactions, and patients who cannot tolerate arsphenamins can readily tolerate tryparsamid. This, in brief, covers most of the arsphenamins, although there are numerous other modifications that have been made during the past 19 years.

The arsphenamins have been of great value in the treatment of syphilis, not only because they produce a rapid disappearance of the symptoms of the disease and in most cases have a pronounced influence upon the Wassermann reaction but because they destroy the early infectivity of the disease, and therefore, from a social standpoint, they are of very great value. You can readily imagine a prostitute coming to the clinic in the old days and getting mercurial pills and then going out and continuing to ply her trade and infecting scores of other people, whereas under present therapeutic conditions such a woman is sterilized almost after her first treatment, and further dissemination of the disease is distinctly limited.

Despite the great advances that were made in the therapeutic attack on syphilis, we were still greatly embarrassed in the treatment of some of the latent noxious types, particularly paresis and tabes dorsalis or locomotor ataxia.

Wagner-Jauregg, of Vienna, had for many

years been working on paresis. He had been tremendously influenced by the fact that in looking all over the literature of medical history from the days of Hippocrates, those of Boerhaave and his associates, down to the present time, numerous cases were on record, showing that persons who were past-paretics, and other persons suffering from medical psychosis who had passed through intercurrent febrile attacks, were enormously improved and in certain cases cured as a result of the fever. He then endeavored to employ fever-inducing agencies in order to note their effect upon paresis, and after going through a great many experiments with the use of tuberculin and staphylococcus vaccines, he came to the use of malaria. Inoculation malaria has now been employed in the treatment of many thousands of paretics, and in other types of neurosyphilis, and indeed in other forms of syphilis, and we are today in a position to fairly well state the results which have been achieved. Indeed, no matter whether it is employed in this country or abroad, the results are much the same as those originally reported by Wagner-Jauregg. About one-third of the patients with paresis go into complete remission. One-third more go into a partial remission and the balance are not influenced. Some patients who go into partial remission, later change to a complete remission. In regard to the period of time in which these patients may remain free of original symptoms, it is as long as 7 or 8 years because 3 of the patients who were treated in 1919, out of 5, I think, are still back at their work. One of them is a professional man.

Of course, neurologists would tell us that under ordinary circumstances patients with paresis will have remissions and will be much improved for a period of 3-6 months or longer, but the remissions which result after the use of inoculation malaria are quite different from a qualitative and quantitative standpoint. The remission in percentage of cases is much larger and, secondly, the remission is much longer. We do not know yet the ultimate fate of these patients. Some of them may ultimately relapse but it is more probable that some of the results will remain permanent because there is at the same time with

the clinical improvement an improvement in the pathologic condition of the brain and in the destruction or loss of spirochetes in the brain.

About 100 brains have been examined of patients who had received inoculation malaria for paresis and, as far as I know, in only 1 instance were spirochetes found, whereas a skilled histologist will ordinarily be able to find spirochetes in the brain after autopsy of at least 66% of such patients. That is quite significant. Furthermore, there is a pathologic regression in the histologic picture of the brain and a skilled histologist would doubtless be unable in many instances to recognize that the ordinarily characteristic picture of paresis was still present, so that the clinical, the pathologic and the parasitic changes which take place in the brain are all in harmony.

As regards serologic effects, they do not always parallel the clinical effects, but in many instances from 6-9 months after malaria positive spinal fluid will become negative, and a positive blood, which we nearly always have in association with paresis, is prone to become negative.

However, the inoculation of malaria is not a procedure devoid of danger. In our own series of about 100 cases we have only had 1 or possibly 2 deaths, but our low mortality was perhaps due more to selection of cases than to anything else. In other groups, the deaths have been as high as 8%. But in a disease which was always fatal, this is a very small death rate and the results which have been achieved in restoring these patients to relative health, permitting them to go back to their business or their profession, is something which marks this introduction of inoculation malaria as a distinct advance in the treatment of this disease. In locomotor ataxia likewise many cases have been improved.

While we know that these results have flowed from this treatment, there is doubt as to the manner in which the improvement is brought about. Is it the high fever which is induced, for we do get temperatures running to 105°, 106°, and 107°, which is maintained above 103° often for 5-6 hours; or is it some other change in the system, some change which is produced by this infection? About

this there is no concordance of opinion among the men best qualified to speak. We do know, however, that the more paroxysms the patient has, and the higher fever he has, the better, as a rule, is the therapeutic result; and this suggests that possibly the fever has a good bit to do with the resulting benefit.

In order to throw some light on the subject, I carried out some experiments in our institute. We were able by giving rabbits hot baths—baths hot enough to raise their body temperature an average of 4°—daily for 11 days to prevent the development of syphilis, although the rabbits were infected intratesticularly with the disease. This was not only proved by observation of the rabbits but by later removal of their inguinal and popliteal glands, inoculating these into other rabbits, and thus showing they had not been infected. Then we took rabbits in which we had large chancres on the scrotum. These chancres under 15 hot baths daily underwent as rapid dissolution and disappeared as promptly as if given "606"; and the spirochetes disappeared within a few days. This led me to the use of hot baths in human syphilis. We have a rather complicated installation for this purpose—a very large tube with a thermostat, with thermometers on the wall that indicate the temperature of the water, with a recording graphic thermometer on the wall which shows the temperature of the patient. I may say in a few brief words that we have been enabled to raise the body temperature of the human being as high as 106°. We have raised the temperature to 102° or 103° in many cases and we have been able to observe that the early symptoms of syphilis, under the use of hot baths and without any other measures, show a favorable influence. The eruptions will often fade.

It is a rather striking fact that throughout the world, in this country as well as in Europe, patients with syphilis have almost since the disease was first known sought thermal springs for treatment. Even in Japan, the famous springs of Kusatsu where the temperature of the water is as high as 143°, are greatly in use in the treatment of syphilis. It is claimed that patients there can take a brief bath at a temperature of 123°, which is pretty

hot water. We have been able to give our patients baths up to 114° under close medical surveillance. Their diastolic pressure often drops almost to zero with very slight increase in the systolic pressure.

All I can say with regard to the practical value of this method of treatment is that I believe we would do well to have all of our patients who have syphilis take hot baths, probably most of them at a temperature of 105°. I believe the course of the disease would be more favorably influenced if they were to take such baths in conjunction with the modern approved methods of treatment.

So, fortunately, we are in a position today to give a very much more favorable prognosis with regard to syphilis than ever before. There are some extremely critical men who hold that we have no proof that syphilis is a curable disease, but we may reply to them—"You have no proof that it is not a curable disease." Surely syphilis is just as curable today as tuberculosis, because we know that patients may be rid of all presented symptoms, may develop a negative Wassermann both in the blood and spinal fluid, and furthermore after proper lapse of time have healthy children and remain free of symptoms of the disease for the rest of their lives. If we cannot pronounce these patients cured, then it is doubtful whether we can cure other diseases.

Mention of the spinal fluid brings me to state a few points about the importance of always examining the spinal fluid before the patient is discharged from treatment. Personally, I prefer to do the lumbar puncture at the end of the first 6 months of treatment because if the patient is headed toward a neural involvement, if he shows that the spirochetes have invaded the central nervous system and the local anti-bodies have not overcome them, as takes place in the majority of cases, for in the early stages of syphilis 50% of our cases show some pathologic change in the spinal fluid, then it seems to me we must alter our course of treatment.

I believe if, after intensive treatment for the first 6 months, a patient has a strongly positive Wassermann and increase in the protein content of the spinal fluid, an increased

number of cells and so on, that is the ideal time for inoculation malaria, because the patient has not had his heart and his kidneys and his blood vessels damaged by syphilis over a period of years and is a much better risk for treatment than if we wait for several years, and the results are bound to be far more satisfactory. We do not know the exact indications and limitations of the use of malaria in syphilis. Professor Curley, of Vienna, used it in early stages of 1500 cases. He showed me at random a few years ago lists of cases in which patients had come to him for a symptomatic neurosyphilis, that is, neurosyphilis with no obvious clinical symptoms save possibly some changes in the pupils. These patients, however, had positive spinal fluids and other abnormalities in spinal fluids. They had been given all sorts of intraspinal as well as intravenous and intramuscular injections without much change in the serologic findings. After the inoculation of malaria they developed, in the course of 6-9 months, in the majority of instances negative serologic results. So, malaria, it appears, has come to stay as a therapeutic procedure.

What is the outlook in the treatment of syphilis? Much depends upon the stage at which a patient comes to secure treatment. If he comes in the primary stage and we are able to find spirochetes in the chancre, the chances of cure are extremely high. The vast majority of such patients, if not all of them, should get well. If the patient comes in the secondary period, the percentage of cures should be extremely high. If he comes, however, at the age of fifty with an ignored syphilis—and I might say parenthetically that I have no doubt there are tens of thousands of cases in this country of people who are carrying syphilis and do not know it, and all of this time there are insidious changes taking place in the heart, in the vessels and in the viscera—the chances of a radical cure are poor although he may be cured of existing lesions on the skin or in the liver or brain, and he may be kept alive and in good condition for many years. The date under which the patient comes for treatment is an extremely important matter in prognosis.

I have taken sufficient of your time and I

shall close with the quotation of a couplet from Shakespeare's Merchant of Venice, I believe. Shakespeare might well have had the inoculation treatment of malaria in mind when he said:

"Take thou some new infection through the eye

And the rank poison of the old will die."

DISCUSSION

Dr. Karl M. Scott (Atlantic City): Of course there is very little to add to any paper or talk of Dr. Schamberg's. He has given us a classical talk on this subject, but there are one or two questions I would like to ask. The thing that has been impressed upon me, as the cause of persistent trouble has been the routine use of rest periods in the treatment of early cases. So often the practice is to give them a certain course of treatment and then a month's rest and then another course, perhaps of the same drug or perhaps of another. I think that certainly in the first year of early cases, primary and particularly secondary cases as you see them first, there should be almost no rest periods until you have achieved not only your first negative Wassermann but have carried on to something more permanent.

Dr. Schamberg didn't speak of that. I know he doesn't give rest periods.

I ran across something just recently, speaking of sulpharsphenamin as being so well adapted to intramuscular injection. Clinically that is quite true. They don't have as much pain. In a recent article in the Archives of Dermatology and Syphilology a pathologist reports that the necrosis of muscle and connective tissues is just as marked with the use of sulpharsphenamin as neo-arsphenamin. He maintains it is shown that arsphenamin, neo-arsphenamin and sulpharsphenamin and mercury create sterile abscesses. That is practically true of sulpharsphenamin used for about 2 months without too much disturbance to the patient.

There is another question I would like to ask. There seems to be an idea that tryparsamid is of no great value. Many men say it is of no value in tabes and only is of value in early paresis. However, clinically you seem to see some improvement and tryparsamid can be given over long periods. I would like to ask Dr. Schamberg's opinion as to that.

Dr. A. E. Jaffin (Jersey City): There is no question about the value of malaria in syphilis but the great difficulty arises sometimes in having an available source of malaria plasmodia. I would like to ask Dr. Schamberg whether the use of typhoid bacilli or some harmless saprophytes that are recommended by foreign clinics are valuable as substitutes?

Dr. H. A. Schachter (Newark): I should like to have Dr. Schamberg express an opinion as to the relative value of malarial treatment, the treatment by rat-bite fever or sokodu, and similar parasitic treatments, as compared with the good old-fashioned heat treatment which has been used at Hot Springs, Arkansas, which is used in England in conjunction with mercurial injections and sulphurated waters and iodids, and which is in use throughout Europe and Asia and every other part of the civilized world where the treatment of syphilis is recognized as a problem?

When I was at school, Dr. E. Bates Block, Professor of Neurology, at Emory University, remarked upon the fact that certain negroes who unquestionably had syphilis and who worked in limekilns and were exposed to intense heat did not develop paraplegic symptoms or syphilis of the central nervous system. That observation was made by a number of Southern physicians in the vicinity of these lime kilns in which the darkies worked.

About a fortnight ago in Atlantic City, a well-known neurologist (whose name I don't recall for the moment) read a paper describing some work he did using the old-fashioned bath tub and hot water in developing a hyperpyrexia in individuals with syphilis of the central nervous system. He reported that although he did not get the serologic changes that occur in the malarial treatment, he did observe definite clinical and symptomatic improvement in his patients. By means of hot water—and later he substituted a continuous hot bath as more desirable than the hot pack he employed following the hot water immersion of the patient—he succeeded in obtaining results quite as satisfactory for all practical purposes as with malarial inoculations. The question naturally arises in our minds, in our anxiety to discover something to seize upon, something new, something spectacular, something that has such marvelous therapeutic possibilities and which has demonstrated its practical value, as malarial treatment—(Dr. Solomon, of Boston, you recall, has used sokodu or rat-bite fever)—isn't it possible that we are overlooking perhaps the best form of treatment known for syphilis in its later stages? Do you think, Dr. Schamberg, that we have really exhausted the possibilities of physiotherapy, particularly heat, in the treatment of syphilis? Are we as familiar as we might be with its potentialities?

Dr. Jay F. Schamberg: Dr. Scott, I am very glad you asked the question about rest periods. In my extemporaneous talk I omitted to speak of it in the general practice of the treatment of syphilis. Rest periods during the first year, I think, should not be given but we must distinguish between a rest period of treatment and a rest period of absorption. Our routine, and of course we have to have certain routine methods of treatment even though it is important that we individualize in special cases, is the administration, first, to patients in early syphilis, of bismuth—100 milligrams we ordinarily employ of potassium bismuth tartrate. Three days later we give a dose of neo-arsphenamin but we now never give the full dose I haven't given the full dose for several years because we are able to secure adequate therapeutic results, with practically no reactions—no jaundice, no encephalitis, no severe dermatitis or any of the severe reactive phenomena which have been known from time to time to follow the use of arsphenamin. We give them the first dose of 0.35 or 0.45 gm. of neo-arsphenamin, never more than 0.6 gm., and we give them each week say 100 milligrams of bismuth and 0.45 gm. neo-arsphenamin for a period of 15-20 weeks. Then the patient is given a rest of a few weeks from treatment, although he is still absorbing bismuth from the gluteal muscles. Then again, depending on the serologic findings and conditions of the spinal fluid, we may give bismuth or substitute mercury. I failed to say anything about mercury, but mercury, I believe, is more toxic than bismuth and less therapeutically active, although still a drug to be used in appropriate cases.

The patient should be treated throughout the first year almost continuously, and for at least

one-half of the second year, and at times during the third year, the exact conditions depending upon the factors in each individual case.

With regard to sulpharsphenamin, it is quite possible that every dose of sulpharsphenamin you introduce into the buttocks may produce under the microscope a liquefaction or thrombosis or necrosis of muscle tissue but that is likewise true of every metallic substance. What you see under the microscope and what the patient experiences may be two different things. The patient will tolerate sulpharsphenamin much better than other arspenamins.

With regard to tryparsamid in tabes dorsalis, I am not sure it gives as good results as in early cases of paresis. I feel strongly that tryparsamid is inferior to arspenamin in the treatment of tabes dorsalis and the treatment of paresis. There is some difference in the point of view as to how long one may give tryparsamid without danger of injuring the optic nerve and all patients who are under treatment should have frequent examinations by an ophthalmologist.

Bismuth is one of the most ideal preparations that we have for the treatment of syphilis. It is therapeutically very close to the arspenamins. It may be given almost without reactions. We have given 25,000 to 30,000 injections with never a severe reaction—never more than light eczematoid skin eruption or blue lines on the gums or mild degrees of stomatitis—and it is distinctly more valuable in interstitial keratitis and in certain types of nerve syphilis than is mercury.

As regards the substitution of other fever-inducing agencies, such as typhoid or rat-bite fever or the injection of certain organic products to raise the body temperature, they all have their value. I am quite sure that intravenous typhoid inoculation does improve patients suffering from paresis, but if you take 1000 cases and treat them by the one method and by the other method, I am quite sure likewise you will get very much better results from malaria because the rise of temperature is much higher, it is maintained for a longer period, and it produces a profound influence on the underlying disease.

As regards the effect of treatment in spas where hot baths are given, unfortunately in the European and American resorts the baths are not hot in the sense in which we use the term. At Hot Springs, Arkansas, the baths are 94°, which is certainly not a very hot bath and does not raise the body temperature. It is only the immersion bath which raises the body temperature. The hot room in the Turkish bath does not raise one's temperature because the sweat evaporates and the process of evaporation regulates the body temperature so that it does not rise. It is only in the immersion bath which prevents the effects of evaporation that increase in body temperature takes place.

I think that certain measures of physiotherapy will be found to be of value in cases in which you wish to increase the temperature of certain tissues, perhaps by diathermy. I don't know whether diathermy has been sufficiently used in locomotor ataxia. I do believe in some way or other the raising of the temperature of tissues in which spirochetes are lodged appears to have a destructive influence upon those spirochetes.

We have shown in our institute that when we place spirochetes in test tubes in physiologic salt solutions and heat the water, that we interfere with the biologic activity of the spirochetes. At the end of 2 hours at a temperature of 41° C. the spirochetes either fail to produce syphilis or the period of incubation of the disease is prolonged

from, say, 25-65, or even 85 days. Furthermore, if you heat the spirochete up to 105.8° for 5-6 hours, the spirochete breaks up. That is not a high temperature and many vegetable bacteria would not be much influenced by it but spirochetes seem to be thermolabile and seem to be influenced by any considerable rise of the body temperature.

DIAGNOSIS, PREPARATION, OPERATION, AND AFTER-TREATMENT OF BENIGN ENLARGEMENT OF THE PROSTATE GLAND*

CHARLES H. DET. SHIVERS, M.D.,

Associate Professor of Syphilology, Graduate School of Medicine University of Pennsylvania; Chief Urologist Atlantic City Hospital; Chief Urologist Atlantic City Genito-Urinary Clinic

Atlantic City, N. J.

Knowing very little about physiology of the normal prostate, it is not surprising that we are in the dark as to pathology and etiology of the enlargement which it so frequently undergoes during the last few decades of life. Not only are we in complete ignorance of the causes underlying enlargement, but we are even in doubt as to its nature. It is known now that the term "hypertrophy", formerly applied to it, is a misnomer. Probably the theory most widely held at the present time is that the enlargement is in the nature of an adenoma, and it seems probable that whatever conclusion is reached in this obscure matter will be based upon the belief that the enlargement is due to degenerative changes occurring throughout the entire genital tract toward the end of active sexual life. This degeneration may be termed fibro-epithelial, and is entirely comparable to that which occurs in the female breast after the menopause.

Morbid anatomy and microscopic changes. We may distinguish the diffuse hard fibrous type, and a type characterized by the growth of encapsulated adenoma. No given examples adhere strictly to either type. It is the rule to find each existing in different parts of the specimen. It is to be noted that the fibrous changes which occur in the gland do not re-

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sult in any actual enlargement. This enlargement, whence the name—prostatic hypertrophy—is due to the adenomatous change which takes place in that part of the gland nearest the urethra, whether laterally or below.

Cause of enlargement. The only cause of enlargement of which we can speak with any degree of certainty is old age. The symp-

In cases that have had an infection over a period of years, which may or may not have been secondary to a previous gonorrhea, it is more common to find a fibrous prostate with bar formation. The infection may in some way prohibit the adenomatous enlargement.

Site of enlargement. The parts of the prostate most commonly affected are the lateral

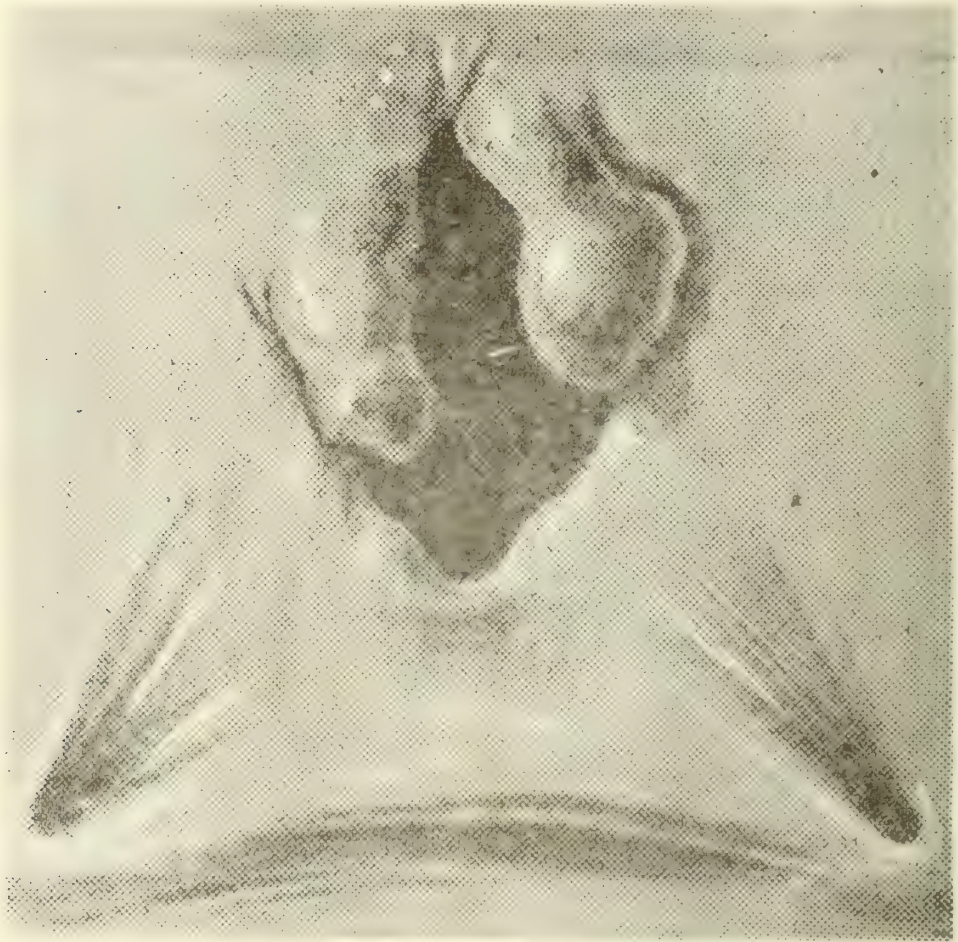


Fig. 1—Nodules of prostatic tissue at prostatovesical opening.

toms usually become noticeable between the ages of 50 and 60, but it is certain that the actual enlargement started earlier. I have seen definite adenomatous enlargement of the median lobe at the age of 39. Attacks of inflammation may have some influence, but it is certain that there is no direct relationship between enlargement and previous attacks of gonorrhea; nor would sexual excess appear to exert any direct influence on this condition.

and median lobes, which generally show an intra-urethral and intravesical enlargement. There is, really, only one portion of the prostate which does not take part in this process, and that is the posterior lobe, or that part of the gland that lies below the level of the ejaculatory ducts. This site is frequently the starting point of carcinoma, but it scarcely ever takes part in nonmalignant enlargement. The hypertrophied prostate enlarges in 2

directions; into the bladder through the lumen of the vesical sphincter, and backward outside the bladder stripping the seminal vesicles and the fascia covering them from the bladder base.

Owing to the vesical projection, the level of the intra-urethral meatus of the bladder is raised and at the same time there is a definite lengthening of the prostatic portion of the urethra. To be more exact, this lengthening

creased frequency of urination in a patient past the prime of life will at once direct attention to the prostate. The patient may have had at some time a catheter passed to relieve an acute retention. If this retention has been due to stricture, the individual is generally well aware of the fact. Many, before consulting the specialist, have been in the hands of another physician who referred them with a definite prostatic history, but it is never well



Fig. 2—Strips of mucous membrane at the prostatovesical opening.

of the urethra occurs in that portion lying between the bladder neck and the opening into the urethra of the ejaculatory ducts. The most common changes which occur in the bladder are thick fleshy trabeculations and hypertrophy of the trigone.

Differential diagnosis. The diagnosis of prostatic enlargement is not difficult. In the first place the clinical history and the symptoms are almost invariably characteristic. In-

to accept the diagnosis of prostatic enlargement until you have first made a thorough study of the case and confirmed the diagnosis by all methods at command.

Very many of the symptoms and physical signs presented by prostatics are known to occur in other affections, hence it becomes necessary to consider carefully the differential diagnosis and to form in one's mind the method of exclusion. Differential diagnosis

must be made between enlargement of the prostate and the following conditions:

(1) Atony of the bladder; (2) stricture of the urethra; (3) vesical calculus; (4) growths situated at the neck of the bladder; (5) abscess of the prostate; (6) carcinoma of the prostate.

Atony of the bladder may be caused by prostatic obstruction. The symptoms of this malady, even when produced by another cause, may very closely simulate those attend-

intravesical enlargement of the prostate on cystoscopy, and the typical atrophic trabeculation of the bladder wall, should lead to a careful investigation of the nervous system and prevent such a mistake. At the same time, the presence of tabes does not prevent development of prostatic enlargement, and where the conditions are coincident it is a very difficult problem to solve, whether the residual urine measuring 8-10 oz. is due to the atony of nervous disease or to obstruction.

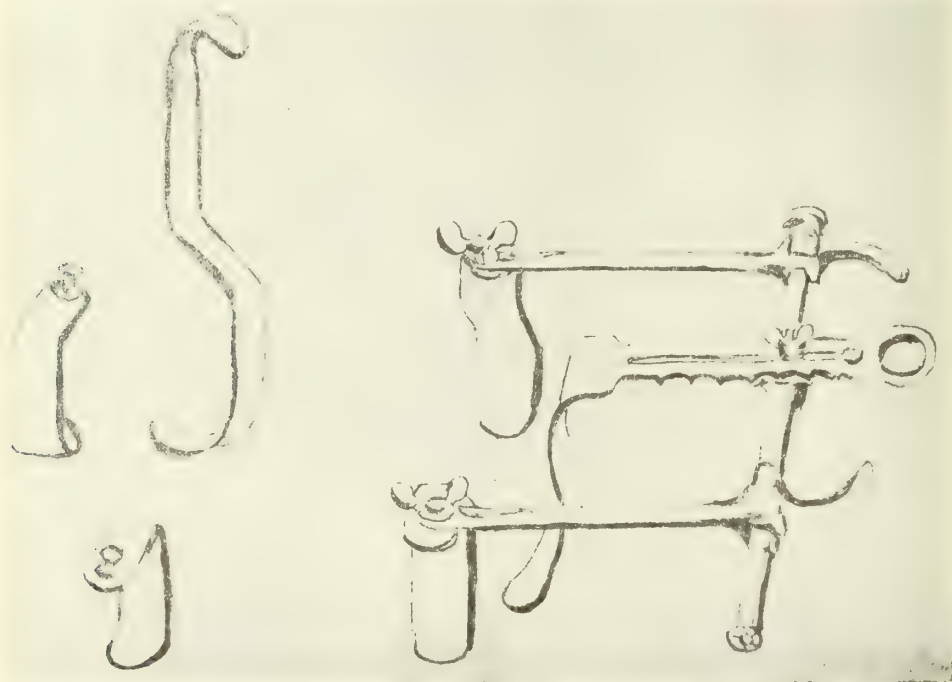


Fig. 3—The Thomson Walker bladder retractors. Abdominal frame with detachable bladder blades. Hand retractor for anterior wall. Detachable abdominal wall blades.

ant upon enlargement of the prostate. The most common nonobstructive causes of atony of the bladder are those of organic disease of the spinal cord, of which tabes is the most frequent. The mistake of attempting prostatectomy in a purely tabetic bladder, with the idea that the residual urine is due to prostatic obstruction, should never be made if the patient is fully examined before operation. There are cases, however, where the symptoms of tabes are so slight and irregular that they may be easily overlooked. The absence of enlargement of the prostate felt by rectum, the younger age of the patient, the absence of

We believe that several factors must influence this decision.

First, the time at which the bladder symptoms appear, whether within the prostatic age, after 50 or prior to this. There is the absence or prominence of bladder irritation, excessive irritation pointing toward the prostate as the cause of the trouble, and a complete absence of irritation indicating that the condition is of nervous origin. Neither is, however, conclusive, for the bladder in multiple sclerosis is often of a spasmodic type and cystitis in a tabetic bladder may produce frequent urination or strangury, while the blad-

der subject to chronic prostatic obstruction may give rise to no discomfort or irritation. The type of trabeculation seen through the cystoscope may be of considerable help, a fine atrophic type with wide-spread sacculation being especially associated with tabetic atony, and a thick fleshy type with obstructive retention.

Prostatectomy is not contraindicated by the presence of tabes, if the prostate is definitely enlarged, but the grave risk of leaving an atonic bladder after operation, must be carefully weighed.

Atony of the Bladder without nervous dis-

found anterior to the cut-off muscle. In cases, however, of impermeable stricture with chronic retention, it will not be possible to examine the prostate properly until these conditions are relieved.

Vesical calculus. When this exists, it is not liable to be mistaken for an enlarged prostate unless it is firmly fixed in the neighborhood of this organ and so thickly coated with mucus that no grating sensation is imparted to the sound. In these rare circumstances it may likewise be missing by cystoscopic examination, but even under such circumstances there may be no residual urine, which invari-

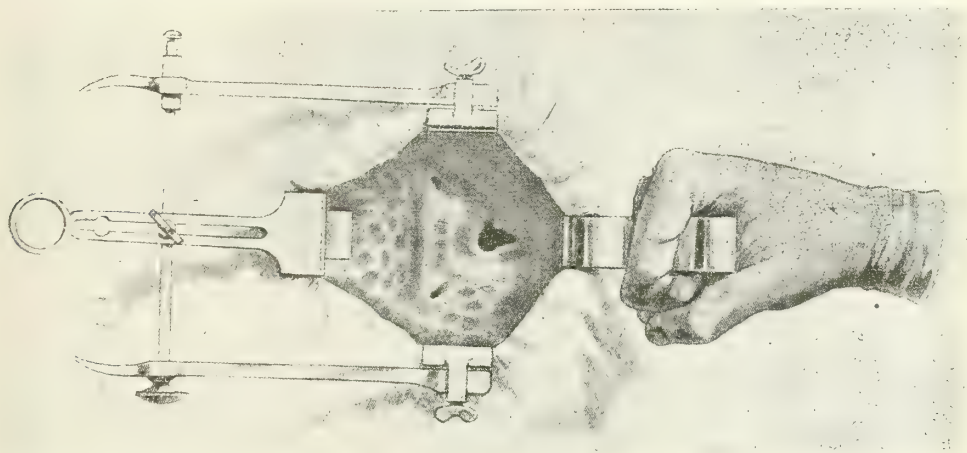


Fig. 4—View of Thomson Walker bladder retractors and vesicoprostatic opening, with retractors in place.

case. There is a group of cases, occurring most frequently in young men, where there is atony of the bladder without obstruction and without symptoms of nervous disease; this has not been widely recognized. The diagnosis is difficult. Early irregular tabes must be carefully excluded by lumbar puncture and other means, and contracture of the neck of the bladder and atrophy of the prostate must be searched for and excluded by thorough investigation.

Stricture of the urethra. When these are present, exclusion of prostatic enlargement is more difficult. Although the age of the patient may render presence of the latter affection extremely improbable, yet many of the symptoms are the same. By passing an instrument into the urethra, obstruction will be

ably accompanies enlarged prostate producing symptoms.

Polypoid growths in the bladder. When springing from the region of the prostate, these may grossly simulate a pedunculated middle lobe, but in nearly all forms of vesical tumors other than prostatic spontaneous hemorrhage is an early and conspicuous symptom.

Abscess of the prostate. Abscess usually follows acute inflammation but may be traumatic in origin. Besides the history the course of this affection is so acute compared to that of enlargement that confusion is not likely to arise.

Malignant disease. Chiefly of the adenocarcinomatous type the symptomatology of early cancer of the prostate is almost identical with that of benign enlargement, with which

it is frequently associated. Differential diagnosis is either an impossible one to make, or if made at all is based entirely on the physical signs. Pain independent of urination is very suggestive in malignancy, at first recognized in the region of the prostate and constant, it later becomes referred especially to the perineum, back, buttocks and thighs. It should not be forgotten that carcinoma may exist in an atrophied prostate, but the average case shows a definite increase in the area of the gland.

portant in examining enlargement of the prostate in old men to use a small caliber cystoscope. We prefer a Brown-Buerger cystoscope No. 18 F. with a convex tip. It is often advisable to have an extra long sheath made so that the terminal portion of the lens system can reach the interior of the bladder cavity. In cases where there is an especially large intravesical median or lateral lobe, the prostatic portion of the urethra is elongated; and if one depends upon the standard length,

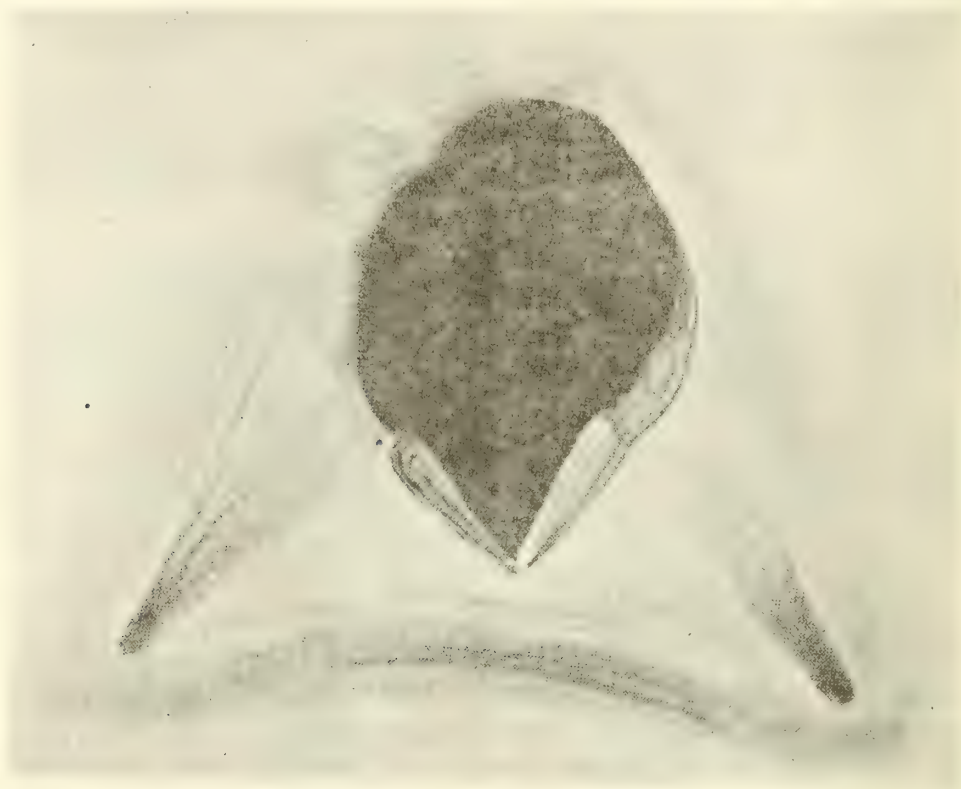


Fig. 5—Prostatovesical opening with wedge cut in posterior fold.

The contour of the rectal surface of the gland is irregular, nodular and hard, and the gland is firmly fixed to the surrounding tissues. Areas of stony hardness are the most important physical findings by rectal palpation. Carcinoma of the prostate usually occurs at the time of life when we naturally expect hypertrophy, but only within the last few months I examined a patient with advanced carcinoma of the prostate and generalized metastasis, though he was only 33 years of age.

Cystoscopic diagnosis. It is extremely im-

portant in examining enlargement of the prostate in old men to use a small caliber cystoscope.

We prepare all patients for cystoscopic examination by sterilizing the anterior urethra with 1:10,000 solution mercuraphen or metaphen. This is followed by injection of $\frac{1}{2}$ oz 4% solution of novocain into the anterior urethra. The solution is retained, either by holding the meatus with the fingers or applying a clamp, in the anterior urethra from 5-10 minutes before the cystoscope is introduced.

Individuals with very irritable bladders

where introduction of an instrument may give rise to a great deal of distress, have a caudal anesthetic. This consists of 30 c.c. 2% solution novocain, injected slowly into the sacral hiatus. The cystoscope is introduced with great care through the deep urethra. The bladder is comfortably distended with sterile water and the intra-urethral and intravesical portions of the prostate are carefully inspected, together with the interior of the bladder for the presence of calculi, new growths and change in the musculature of the organ.

One will usually find on cystoscopy these cases of prostatic enlargement, where there is complete or partial retention, a marked intra-urethral enlargement of the lateral lobes, both bulging into the lumen of the urethra. The mucous membrane covering is smooth, and if there has been no recent acute retention or severe infection there is very little congestion. The intravesical examination will show a median lobe enlargement with either right or left lateral lobe predominating. At times the enlargement may be almost entirely intravesical, and other times intra-urethral with a slight intravesical enlargement of the median lobe. This type of enlargement must be differentiated cystoscopically from a fibrous bar.

Differential diagnosis. A McCarthy panendoscope No. 24 F. size is of the greatest aid in differentiating between a fibrous bar and adenomatous enlargement. Frequently these conditions exist together. It is very important to determine this before choosing the type of operation to relieve obstruction, for in the presence of adenomatous lateral lobes a "punch" operation does not always relieve the obstruction.

It is never advisable to cystoscope a patient with acute retention, nor one with a virgin urethra showing partial retention, until the patient has been carefully prepared and the urethra has become tolerant to the passage of soft catheter. The patient should be on urinary antiseptics for a few weeks prior to this examination.

It is our practice to use indigocarmine as a qualitative test to determine kidney function and phenolsulphonephthalein in doing a quantitative test. A total output of phenolsul-

phonephthalein above 50% for 2-hours-10-minutes is considered good. When the creatinin is above 1.9 mgm. per 100 c.c., we consider it inadvisable to proceed with the operation, or anything above 20 mgm. per 100 c.c. of urea. We have found in operating with creatinin above 2 mgm. per 100 c.c. that the patient is very apt to show uremic symptoms following operation. The blood sugar should not be over 120 mgm. per 100 c.c. In cases showing a delayed coagulation time, calcium lactate 10 gr. every 4 hours may be given 3 days prior to, and for 4 days following the operation.

Preparation of the patient. It is extremely important, in cases that show chronic urinary obstruction, to give proper drainage, preferably by urethral catheter. In the presence of a marked bladder infection and in those cases that tolerate the urethral catheter poorly, a suprapubic cystostomy should be performed; but these are rather exceptional, as the average patient will do well with urethral drainage even over a long period of time. I have in mind a patient who carried a urethral catheter for 1 year before a successful operation was performed. The reason for this delay was due to a low blood pressure, myocarditis and chronic bronchitis.

It is extremely important to give patients wearing urethral catheters the utmost care. The catheter should be changed 2-3 times a week. After each removal, the anterior urethra should be thoroughly cleansed with 1:5000 solution of acriflavin, metaphen in oil 1:5000 or mercuriophen 1:10000. The external genitalia should be washed with soap and water and dried. A sterile catheter is then carefully inserted through the urethra into the bladder and attached to the shaft with adhesive and gauze. The bladder is irrigated with 2 quarts 1:10000 solution of silver nitrate. The patient is instructed in the care of the cork, which when removed for the purpose of emptying the bladder is placed in a solution of metaphen 1:500. He is given a complete irrigating outfit with instructions as to the sterilization for home irrigations daily with 2 quarts of 1:10000 solution of silver nitrate. Stearate of zinc powder is applied about the catheter at the meatus to ab-

sorb any discharge which results from irritation in the anterior urethra. He is instructed to drink an enormous amount of water, 15-25 glasses a day, and to have a bowel movement daily, to eat a good breakfast and noon day meal but a light supper. If the pulse shows any irregularities and the blood pressure is low, digalen 10 drops is given by mouth 3 times a day after meals, or strychnin may be given as a general tonic 1/60 gr. 3 times a day. Protein food, in the way of meats, is greatly restricted. The amount, of course, depending upon the degree of renal retention. This form of treatment is continued until the general health and the laboratory and physical findings are within normal limits. As suprapubic prostatectomy is not an emergency operation, great care and much time can be consumed in preparation of the patient.

The operation of choice for benign adenomatous enlargement of the prostate gland, is the technic devised by Sir John Thomson Walker, of London, first, because it allows the surgeon complete control of hemorrhage and, secondly, because it prevents postoperative obstruction.

Anyone who performs many prostatectomies must meet with cases of hemorrhage severe enough to cause grave anxiety and on very rare occasions to lead to fatal results. Thomas Walker estimates that 10% of cases of suprapubic prostatectomy bleed severely and that about 1% have really serious hemorrhage, but the true mortality of hemorrhage is very small. He states that only 2 cases in the statistics of St. Peter's Hospital, in London, were due to hemorrhage; but, at the same time, it must be remembered that the loss of blood, while it is seldom the true cause of death, is none the less a contributing, if not the deciding factor in the cases that are certified as death from shock, cardiac and renal failure.

Postoperative obstruction. Thomson Walker states that "there are 2 danger points for the development of stricture after prostatectomy, namely, at the membranous urethra where the mucous membrane is severed, and at the outlet of the bladder when the mucosa of the bladder neck is torn across". It is very rare to find any tendency to contraction at the

membranous urethra, partly because it is the custom to pass the catheter in order to wash the bladder during convalescence. In the great majority of cases, the obstruction is at the entrance from the prostatic cavity into the bladder. He further states that the obstruction at the bladder neck is due to failure on the part of the operator to deal with the diaphragm of mucous membrane left between the bladder and the prostatic cavity. For this reason, he advocates that after removal of the prostate, the base of the bladder should be thoroughly inspected, and this ledge of mucous membrane that divides the prostate from the vesical cavity either cut away entirely or a wedge cut in the posterior fold.

The technic of the operation as described by Thomson Walker follows:

This open operation differs somewhat from the technic advocated by Freyer. "A catheter is passed and the bladder distended with 12-14 oz. of fluid. A median suprapubic incision long enough to allow the hand to pass between the abdominal muscles is made, and the bladder opened. With the forefinger, sometimes assisted with the second finger, the prostate is enucleated. It is easily reached when resistance of the abdominal muscles is overcome by the hand sinking between the recti. No rectal finger is required. After removal of the prostate, the patient is placed in the Trendelenburg position, and the interior of the bladder freely exposed by Thomson Walker's bladder retractors. Shreds and flaps of mucous membrane and prostatic capsule or nodules of prostate partly adherent are removed with curved scissors and long thumb forceps. The outlet of the bladder into the prostatic cavity is examined and, if it is not large and open a deep wedge is cut out of the posterior lip in the middle line. A continuous stitch of fine catgut is introduced and takes up the edge of the torn mucous membrane, remains of the vesical sphincter and edge of the remaining layers of the prostatic capsule. This stitch occupies the posterior two-thirds of the circumference of the opening and controls the hemorrhage.

In cases of severe hemorrhage, the prostatic cavity may be packed with strips of iodiform gauze 2 in. wide. This is very easily

and accurately accomplished when the interior of the bladder is fully displayed with the retractors in place. The cavity is packed around the catheter, which is still in place and which projects well into the cavity. The rest of the operation is finished as usual and the plugging removed at the end of 48-72 hours.

Walker considers that free drainage is essential to success of the operation, and uses a large 1 in. rubber drainage tube introduced by Freyer, and a small fenestrated rubber tube in the prevesical space. The bladder retractors are removed and the blades changed for retraction of the abdominal wall. These blades are inserted in the pubic end of the wound. The bladder is pulled up by catgut slings which are still in place, and the rubber tube carefully placed so as to reach without pressing on the base of the bladder. By traction on the slings, the wound and the bladder wall can be freely exposed and closed up to the tube by continuous catgut sutures. Care is taken to avoid stitching the bladder wall too tightly around the tube, as this would cause postoperative spasm of the bladder. The slings are removed and the bladder drops down into the pelvis. The 2 tubes are clipped and held up while the abdominal wall is repaired. Two catgut mattress sutures are placed through the recti and sheath about 1 in. on each side of the wound and the anterior margins of the rectus sheaths are united with a continuous catgut suture. The mattress sutures are then tied and the skin united.

The advantages of this open operation are that the prostate is removed without any struggle, even when the abdominal wall is ridged; sepsis is prevented by avoiding the rectal finger, removing the tags and shreds that slough, and by adequate washing through the retained catheter and the use of the Hamilton Irving box.

After-treatment. If the patient shows any shock, a hypodermoclysis of half normal salt solution is given in the outer portion of the thighs, heat is applied externally and the foot of the bed is elevated. Digalen is administered hypodermically as indicated. If the patient has had the spinal anesthesia, he may receive water by mouth immediately following the operation. No nourishment is given for

48 hr. and the bowels are not disturbed for 3 days. If there is postoperative abdominal distention, the usual methods of treatment are resorted to. Morphin is avoided if possible and only given to those who show a tendency to bleed or are extremely restless from other causes. We prefer to substitute codein. Twelve hours after operation, the Hamilton Irving suprapubic box is applied and the patient is propped up in bed. If there has been sufficient bleeding during the operation to necessitate packing the prostatic cavity, a continuous irrigation of silver nitrate 1:15000 to 1:20000 solution (18 to 25 drops to the minute), through the catheter may be instituted. This is serviceable for chronic sepsis as well as hemorrhage. It may be continued for 4-5 days, or even longer if necessary. Continuous irrigation is an excellent method of cleaning a septic bladder, and prevents further infection. The suprapubic wound heals quickly and cleanly under the treatment. Enemas should be avoided as far as possible.

Great care should be taken of the patient's urethra, bladder and suprapubic region. Gauze saturated in 1:10000 solution of metaphen or mercurophen is wrapped around the catheter at the meatus to prevent infection from extending back along the urethra. This dressing is changed several times during the day. The suprapubic box is removed once daily and resterilized. The dressings within the box, which consist of gauze saturated in 1:10000 solution of metaphen or mercurophen, are changed 3 times a day. It is a custom in England to use dry sterile gauze over which has been sprinkled powdered boric acid.

The urethral catheter may be changed from a silk woven to a Robinson soft rubber catheter as soon as the urine is free of blood. Perhaps it is a little safer to wait at least 5 days. The soft catheter may be left in situ for drainage, or may be introduced daily for bladder irrigation using 2 quarts 1:10000 solution of silver nitrate. The wound above the upper margin of the box is dressed, first with gauze saturated in mercurophen or metaphen solution, and then the usual abdominal pad is

applied. The wound as far as the sinus heals by first intention.

An ointment consisting of carbolic acid 30 gr., olei ricini $\frac{1}{2}$ oz., zinc ointment and lanolin each 1 oz., is applied daily about the margin of the box and prevents irritation of the skin. As soon as the suprapubic sinus closes the box is removed. The patients are generally voiding through the urethra within a 2 weeks period and usually out of bed at this time.

Following prostatectomy, the bladder receives very careful attention until all evidence of infection clears up. The patient is always cystoscoped prior to discharge.

DISCUSSION

Dr. E. V. Johnson (Atlantic City): Dr. Shivers has asked me to make a few remarks in regard to spinal anesthesia which was used in this case. As you noticed, in the beginning of his motion picture, we were administering the spinal anesthetic solution. In this case, as in all other cases in which we use spinal anesthesia in the Atlantic City Hospital, we used Pitkin's solution, which probably all of you know is a 10% novocain solution to which alcohol has been added to lower the specific gravity, and to which starch paste has been added to slow the rate of absorption of novocain. We have selected this particular solution because of its controllable features, because of its stability, and because of its ease of administration. You noticed in the picture that we administered this solution while the patient was lying on the table. When this solution is used, the patient should not be allowed to sit on the edge of the table in the ordinary lumbar puncture position which we have been used to using heretofore.

Urologists, I believe, have much more readily than the general surgeon accepted spinal anesthesia. That is probably as it should be because the urologist is dealing so frequently with these prostatic obstruction cases. They are old men presenting, for the most part, damage to their vital organs, damage to the kidneys, the vessels and the heart chiefly, and the lungs, the liver, the gastro-intestinal tract and the metabolic processes are also deranged. In other words, we have a condition in which anesthetics which we have used heretofore have the potentiality and also probability of causing further protoplasmic damage to these organs which are already damaged. Spinal anesthesia at the present time offers us the only form of anesthesia in which further damage to organs does not occur.

Great strides have been made in the treatment of prostatic obstruction. Preoperative study and preparation, has made great strides. Preoperative treatment is practically a standardized one regardless of the methods used for arriving at it. The same thing is true of the postoperative care. However, the question of anesthesia has not yet reached such a stage of acceptance.

I don't believe the time is yet quite ripe for us to advise the use of spinal anesthesia as a routine measure. I say this because the profession itself

is not yet ready to accept it as a harmless procedure as compared to the other anesthetics and neither is the general public prepared to accept it. I do believe, however, that in these serious cases, such as the prostatic cases, the adoption of spinal anesthesia as a routine will mark the next great advance in progressive treatment.

Dr. A. H. Lippincott (Camden): My experience in prostate work is that if we develop a technic and continuously pursue this, our mortality in these cases will be very much reduced. We all know that within the last few years the mortality in prostate work especially has been materially reduced. It is due to the fact that attention has been paid to the ante-operative, the operative, and the postoperative procedure. There was a time you all know when the patient was rushed into the hospital with retention of urine due to prostatic obstruction and hardly had his clothes removed when he was sent to the operating room and the bladder opened. It is my experience that many of the deaths occurred from this first stage operation. The present procedure, as Dr. Shivers has so well shown us, will at once take that case out of the emergency class.

The introduction of a catheter, slowly emptying the overdistended and chronically distended bladder, the fixation of this catheter in place takes this case, as I have said, out of the emergency class. We are then able to really camp out on this old man and take our time in doing the work. With these methods, the mortality has been markedly reduced.

There are 2 approaches to the gland and I do not think it makes very much difference whether you choose the suprapubic route or the perineal route. If you have developed your technic, I think the outcome of the case is just as well one way as the other. I favor the suprapubic route.

The first 4 cases of prostatectomy that I ever did alone were done following the method of Young, of Baltimore, the perineal route. The first case was wonderful. The outcome of the case read like Young's description of his operation. The next one was not quite so good. The next 2 I never speak of. I have since then confined myself almost exclusively to the suprapubic operation.

I do believe in a tabetic bladder, with an enlarged gland that is obstructing, that removal of this gland is of benefit. I can recall 2 or 3 cases where I have done this operation and the patient has been markedly relieved, and residual urine has been reduced.

Following the slow closure of a suprapubic sinus due to some obstruction that has been accidentally left behind, I have used the instrument that was devised by Dr. Collings, of New York, for removal of obstructing material, with very great success. It is done under caudal anesthesia. There is very little traumatism in passing the instrument after prostatectomy and the results are very good. The results are also very good in cases of obstruction due to a carcinomatous gland where operative procedure is out of the question.

In our institution today one of our staff has a prostatic cancer. He has had a year of very pronounced dysuria. He has lost sleep and been very uncomfortable. He is now undergoing radon treatment. We implanted some radon seeds, gold seeds. I did a Colling's operation on him and he had remarkable relief from his dysuria. I feel that this instrument has a great field in urology.

I do not like the gauze packing. It has been my experience that no matter how carefully it is adjusted you have to have sufficient pressure to

stop your hemorrhage, and in a few cases, in removal of this gauze the hemorrhage has been almost as bad as it was originally. Where we feel that the hemorrhage is sufficient to require some hemostatic procedure we use the Hagner bag, but under spinal anesthesia I do not believe we get the bleeding that we did under ethylene or gas and ether. We are using spinal anesthesia in most of our cases. We have used it up to date in about 25 cases and so far it is the very best anesthetic that I have ever operated under in these old men. There is absolutely no pain. Your patient is smiling at you while you are operating, as this picture of Dr. Shivers showed you. The shock is negligible. The blood pressure is low. Naturally the bleeding is less, they return to their rooms in a very much better condition and I cannot help feeling that the postoperative time is shorter and certainly more comfortable and, in our experience, has been very much more satisfactory.

I want to mention the complication of epididymitis. We sometimes prepare cases with the indwelling catheter and do a one-stage operation. I am always more or less anxious with an indwelling catheter in carrying through these cases. I do believe, in spite of any method, that about 20% of these old men develop an epididymitis. We do vasectomies to prevent this condition. We have a case in our ward now where a double vasectomy was done. A Young's punch operation was done and he had an epididymitis. So you see there is a chance, even with vasectomy, of having this complication and the old men do not stand this complication very well. They have chills and fever; suffer pain; lose sleep; and it is a very uncomfortable condition to combat.

Following the operation under spinal anesthesia we give hypodermoclysis at once, either in the operating room or in an adjoining room, and allow them to rest there with head lowered for a half hour or so before removing them from the table to the bed. I feel that this procedure is something we want to consider when spinal anesthesia is used.

Dr. H. H. Axilrod (Atlantic City): I almost did not get here. I left my sick bed because I am so enthused with Dr. Shivers' prostatic surgery and his wonderful results. I have been assisting Dr. Shivers for quite a while in prostatectomies.

I would like to have the privilege of quoting one of Dr. Shivers' recent cases. This is a case that was done last year under ether anesthesia. J. C., age 73, real estate man, was admitted to the Atlantic City Hospital June 3 for epithelioma of the right shoulder, was operated on by Homer Silvers and was discharged on June 18, 1928. On June 27 he was admitted to the urologic department of the Atlantic City Hospital with a blood pressure of 140/100, poor vision, frequency of urination, and nocturia of 2 years' duration. He was mentally unbalanced, had delusions and hallucinations. The diagnosis on admission was chronic interstitial nephritis and benign hypertrophy of the prostate. A cystoscopic examination was performed by Dr. Shivers on July 25 with the following findings: Intra-urethral and intravesical hypertrophy of prostate gland; 25% milligrams of albumen; the P.S.P. test at the end of the first hour and 10 minutes, no dye output, at the end of the second hour 20%—total 20% in 2 hours and 10 minutes; urea 18; creatinin, 1.7; secondary anemia. He was discharged on August 1 and sent to the Atlantic City Genito-Urinary Clinic, of which Dr. Shivers is chief.

On December 3, after preliminary treatment at our clinic, he was readmitted to the Atlantic City Hospital Urologic Department with some irregular fever. Cystoscopy was performed by Dr. Shivers, which showed: Benign enlargement of the lateral lobes and the median lobe of the prostate gland. The indigo carmine output was 10 minutes from both sides; moderate amount of albumen; the P. S. P. test, at the end of the first hour 15% dye output, at the end of the second hour 20%, making a total of 35%; negative Wassermann; coagulation time, 4 minutes 55 seconds; creatinin, 1.3; urea, 22.3; non-protein nitrogen, 40.5.

It is useless for me to discuss prostatectomies after Dr. Shivers and the other gentlemen have finished speaking. There is only one phase of the subject I would like to touch upon, and that is the postoperative treatment. To my mind the postoperative is just as important as the preliminary treatment or even the operation itself.

We see our patients 3-4 times a day and even oftener the first few days after operation. That is one of the reasons why Dr. Shivers gets such good results. We see that the stretcher that is to receive the patient is covered with hot water bags and the patient is surrounded with them. As soon as he reaches the bed, external heat is applied, followed immediately by enteroclysis one-half normal salt solution. Of course, drainage through the suprapubic tube is established before he leaves the operating room.

One of the strong points in Dr. Shivers' treatment is the feeding. He absolutely does not feed his patients for 48 hours. The only thing they get is water and the amount depends on tolerance of the gastro-intestinal tract. If there is very little nausea, the amount of water is gradually increased. In this particular case the patient received digalen, 10 drops p.r.n., and 5 gr. urotropin t.i.d. Another important point is the wet dressing of 1:8000 mercuraphen around the catheter at the meatus to keep down infection. In the past there has been a lot of infection on account of neglecting the catheter. This dressing has to be changed very frequently by the nurse and kept wet with the solution.

We began feeding this patient on December 5, 2 days after the operation. The dressing of the suprapubic wound is one of the things that Dr. Shivers stresses and he insists on its being done carefully, with 5% mercurochrome and the wet dressing with 1:8000 mercuraphen is changed every 2 hours by the nurse. In this case it was 2 weeks after the operation that the suprapubic wound was still being dressed every 3 hours and the care that he gives the suprapubic wound at the operation has helped to prevent hernia. He uses the mattress sutures for the muscles.

The patient received milk of magnesia, quantity p.r.n., every night for the bowels and s.s. enemas p.r.n. The diet is increased if the temperature is normal. On December 10 this patient's diet was increased to light soft. The packing was removed December 7. By December 17 this man was receiving a soft diet and by December 22 he was being dressed every 3 hours, with 1:8000 mercuraphen. The bladder was irrigated as explained and on December 31 this man had just a few drops of residual urine. He was discharged on January 7 and is in perfect health today.

Dr. J. H. Hekimian (Weehawken): There are 2 chief reasons to remove the obstruction when we are sure that the obstruction is a permanent one and due to prostatic enlargement. One is the pre-

vention of permanent damage to the renal efficiency, which is sure to come on if the thing is left as it is. Next, and quite as important a reason, is the border line case where hypertrophy of the prostate is just beginning to undergo malignancy.

There is no means of making an absolute diagnosis of this condition at this stage, even when a urologist has in his possession every modern diagnostic means. You can't get any idea by rectal examination because the condition has not advanced far enough to give the characteristic hardness of the prostate, nodules or fixation; by cystoscopic examination because the process is within the gland only and hasn't broken through the capsule either into the prostatic urethra or into the mucous membrane. Our diagnosis of absolute prostatic hypertrophy is not complete until the specimen has gone through a thorough microscopic examination. Any urologist who has been following this practice of having a complete microscopic examination will find that within a series of 200 or 300 he will discover several cases of cancer that he never suspected before he subjected the patient to prostatectomy. This is the ideal stage to prevent the advance of cancer and save a lot of suffering to the patient and probably the only time when we can promise a cure of the prostatic cancer.

Dr. H. Garrett Miller (Millville): This is a very interesting subject to me as I am a living example of a supposed cancer of the neck of the bladder. Look me over! I was examined by one of the prominent urologists in Philadelphia and without a doubt, he said, I had a cancer at the neck of my bladder. Possibly it would be of interest for me to give you a little history of my case.

I suffered for 3 years with incontinence and great pain on the act of urination. I diagnosed my own case first as calculus. I went to one of our prominent urologists in Philadelphia and was examined, passed as sound, and he didn't find any evidence of calculus. He advised me to go to the hospital and have x-ray pictures taken of my bladder, which I did. In the 3 years I had 12 different x-ray pictures taken of my bladder and there was no evidence whatever of any solid mass revealed by the picture.

I grew despondent. I took all kinds of palliative treatment that I heard tell of in those 3 years and I can't describe the last year of my suffering. Repeatedly, every half hour through the night, I would have to get up and pass a few drops of urine and repeatedly I took morphin before I went to bed in order to give me a little rest, and I went to the limit. When I found I couldn't go any longer I had a diagnosis made of cancer of the neck of the bladder. I passed bloody urine and there was a lot of pus in the urine.

I went to Philadelphia to the Samaritan Hospital and was put under observation. X-ray pictures were taken. The surgeon came into my room 15 minutes before the time to go to the operating room and said: "Dr. Miller, I don't know what I am going to find. I don't know what I am going to do." I said: "I know what you are going to find and don't do anything that is going to increase my suffering. If you can't do anything to relieve me, don't do anything, for I will give up the fight and I am ready to quit. I can't stand it any longer. Don't do anything to prolong my suffering."

I went to the operating room and he opened up my bladder and found 2 vesical calculi down in the posterior part of my bladder, each of them as large as a big walnut. He removed those and I went back to my room and got along very nicely.

Then, 12 days afterward, he took out my prostate. From that time on I have been progressing.

I lost 33 lb. I have gotten back my weight and a little more and am perfectly well today. I don't think I have a diseased tissue in my body. (Applause.)

I simply wish to state that it is interesting to know what can be done by these operations and what they can do for you if you take them in time. I am very much interested in this subject from the medical standpoint.

I have several patients in my care now. My operation has been talked about in my district and the old men think I ought to know more about it than anybody else so they come to me for treatment and I give it to them. When I feel it is necessary to have surgical attention, of course I recommend that. Just as I was coming over this morning from my home I saw one of my patients walking around the house. Last December I told his wife that I didn't think it was possible for him to live 48 hours. I don't know what was the matter with him. I diagnosed his case as cancer of the bladder. He had been suffering for 5 years. He didn't have a prostatectomy or anything like that but he had been in the hospital under other care and had a retention catheter put in and wore it for months and he had been suffering very much. He had incontinence of urine, great suffering, and all of the symptoms that go along with cancer of the bladder and I didn't think it was possible for me to do anything for him. I put him on urotropin 5 gr. 4 times a day and a teaspoonful of Hayden's viburnum compound. What that has done for him is wonderful. Today he is up, has been walking around and is getting his strength back and is in good shape.

Dr. S. R. Woodruff (Jersey City): Dr. Shivers' paper and demonstration are beautifully done. Prostatectomy is an individualism entirely. If a man perfects a technic and gets his death rate down to below 5%, he is all right. Let him stay at it, whatever he is doing. It doesn't make a bit of difference. If he is getting his patients out of the hospital under 5% mortality and they are having good control of their bladders, he had better keep up that work, whatever it is.

The operation described by Dr. Shivers of course means that the patient must be under spinal anesthesia, because it wouldn't be possible or feasible to spend that length of time on a patient under an ordinary anesthesia. I have been doing prostatectomy for about 18 years and I have been through most of the different kinds of technic. Each candidate for prostatectomy must be viewed from the standpoint of the individual as to just what his condition is and what you are going to do for him. Such technic as described is not feasible in a two-stage prostatectomy and I feel that the two-stage operation is indicated in a large percentage appearing for relief. When a patient goes home out the front door instead of the back door, that is what counts.

My own individual experience with patients is that I don't like to fuss with them after operation. I don't like to irrigate them. I don't like to put anything in the urethra. I like to leave them alone. I may be wrong about that but my results are not so bad. As I said before, it is an individual affair. Each man does his own work as he knows how to do it, and if he gets the results he is all right.

THE TRAUMATIZED KIDNEY; A STUDY OF THE AFTER-EFFECTS*

STANLEY R. WOODRUFF, M.D.,

Jersey City, N. J.

After a complete search of the literature of the past 10 years, I find that little or nothing has been done in the matter of checking up the after-effects of renal injury. It has seemed sufficient to most observers and urologists to be quite satisfied if a patient with a kidney bleeding from traumatism ceases to show hematuria, in a fairly satisfactory length of time and is discharged, without inquiring to any extent into the exact amount of damage accrued. The coming of industrial accident boards and commissions, with the universal compensation insurance at present in vogue, the damage suits attendant upon automobile and other accidents, will now not only make an incentive to study of the after-effects of injuries to the kidney, but will force upon the medical profession the necessity of being able to report the exact percentage of loss of function.

Let us, for a moment, discuss the cause and effect of renal injury. The kidney is a soft glandular organ fed by an enormous blood supply. Its small size in proportion to the amount of blood entering it is most conducive to a high pressure within and consequently presents little or no opposition to rupture when traumatized. That the blood supply of the kidney has much to do with its rupture was proved by Küster, who was unable to cause rupture in the kidney of cadavers, but found it a simple matter when the same kidney was injected through the blood vessels.

Personally, I am convinced that the over-increase in intrarenal tension caused by the external violence, and not the actual blow of the object on the kidney itself, is the cause of a large percentage of these cases. This would likewise tend to explain those types known as "rupture from indirect violence" and "rupture from muscular effort", and this may like-

wise explain the large number of ruptured diseased kidneys reported.

Three methods are described by writers on the subject as being the cause of rupture of the kidney. The first is by direct violence. This naturally is the cause of the greatest number. When the blow is directed against the anterior portion of the body, the kidney is squeezed against the rigid back muscles, ribs and spinal processes and rupture takes place in varying degrees dependent, of course, upon the amount and direction of the force against the body. When the violence is directed against the back, it is in direct apposition with the kidney and rupture occurs by direct contact, rib or spinal fracture.

Rupture by indirect violence takes place when there is no direct evidence of an actual traumatism occurring to the kidney. Examples of this are reported cases of the patient falling a certain distance and landing upon the feet or by a slight fall without any apparent trauma, as in Fox's case, where the patient merely fell from a chair, or those fairly numerous ones where the entire injury has been to one side of the body and it has been the opposite kidney to show rupture. This was the fact in 2 of my own cases.

The third type is that by muscular activity and there are several cases reported where patients have slipped on some movable object, temporarily lost balance and finally regained it, to be followed later on by actual kidney rupture and, in 1 case, death from hemorrhage. It is difficult to conceive the mechanism of this type. The kidney lies entirely upon the muscles of the back close to the spine, the anterior muscular abdominal wall being at considerable distance in front. There is nothing of a muscular nature that can directly seize the kidney and squeeze it sufficiently to cause rupture. Fox reports a most interesting case of this type, where a man, aged 59, stepped on a loose street car rail, lost his balance without falling and finally managed to regain it. Shortly afterward he felt faint, nauseated, and complained of pain in the right lumbar region. He passed a small amount of bloody urine but soon developed a complete anuria. At examination the next morning the patient was in coma

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with a full and rapid pulse, accelerated respiration and a slightly distended abdomen. Catheterization revealed about 1 oz. dark colored fluid. Before cystoscopy could be done the patient very suddenly died. Postmortem examination showed a healthy but transversely ruptured right kidney, the organ being practically divided into equal parts. The left kidney was found to be aplastic and consisted only of rudimentary sac. This condition, of course, explaining the anuria. In this type no doubt the increased intrarenal pressure is caused by the sudden stiffening of the abdominal muscles.

Renal injuries with external wounds are comparatively rare in peace times and are usually due to stab or bullet wounds. Preëxisting disease of the upper urinary tract, such as hydronephrosis, pyonephrosis, renal and ureteral calculus, are most potent factors in allowing rupture to take place by causing a thinning out and weakening of the parenchymal structure. A number of such cases are described by Bailey and this condition should always be held in mind by compensation boards when adjusting.

The right kidney is more susceptible to injury than the left in the ratio of 100 to 70. Whether this is due to the lower anatomic position of the right kidney is problematic. The longer pedicle and greater motility of the left kidney may assist it in resisting traumatism by slipping away when struck. It is certainly odd to observe, as in 2 of my cases, rather severe left-sided injury with rupture of the right kidney.

As external violence is the chief etiologic factor in rupture of the kidney, one would expect the enormous preponderance of such injuries in the male. Bailey reporting 99 males to 9 females, although the statistics of the coming years will alter this in a marked degree on account of the universal use of the automobile, which recognizes neither age nor sex; children particularly will form a fair quota of these injuries in the future. The frequent looseness of the kidney in the female will no doubt still continue to exert an influence to cause a lessened number of renal injuries in this sex.

What are the results of kidney rupture?

There may be nothing but a slight linear subcapsular fracture with a small amount of blood in the urine, a rapid healing and no particular immediate after-effects. Again, the kidney may be mashed into a pulp or torn in pieces and separated entirely from the ureter and blood vessels. In this type there will be no blood in the urine but death will supervene in a very short time from hemorrhage. When rupture of the kidney does not include also rupture of the renal pelvis, there is usually no extravasation of urine, as Tuffier has well shown that the exposed surfaces of the parenchyma do not secrete urine when rupture occurs.

The peritoneum is sometimes torn and the products of the kidney rupture may enter the abdominal cavity.

Hemorrhage is naturally the chief and first complication. Infection and urinary extravasation may follow. The hemorrhage is quite usually comparative to the number and size of the blood vessels torn. Extravasation of urine does not take place unless the renal pelvis is torn, and is not of as grave an import as when the lower portions of the urinary tract are severed; there being much less tension of the urine coming from the kidney, and the perirenal space being much larger and more cavernous.

Infection takes place more readily in the presence of preëxisting renal disease but may occur through the blood stream even without the presence of urinary extravasation and be the cause of subsequent kidney pathology. An interesting case of a traumatic nature for complete destruction of the kidney is cited by Pisani; the case of a man struck by a truck 5 months previously, on the right side and flank, causing a fracture of the right scapula, with hemothorax. He recovered in about a month. At this time a sharp pain in the right renal region, accompanied by fever, began to bother him. A month later a similar attack occurred, with high temperature, headache and frequency of urination. In another month he complained of a feeling of weight in the right flank, loss of appetite, frequency of urination, pains in the lumbar region and hematuria. An exploratory operation was done upon the right kidney and this organ

was found to be totally infarcted, due to evident traumatic thrombosis of the artery.

The symptoms of rupture of the kidney are sudden hematuria, pain and sometimes tumor in the affected side, this all naturally depending upon the severity of the violence and the amount of rupture. The hematuria usually occurs at once and is often persistent, lasting in some cases for as long a time as 2 months. The amount of blood in the urine is a fair criterion of the amount of rupture but not at all conclusive, as in the most severe types where the kidney is wholly or nearly torn from the pedicle, there may be little or no blood in the urine. The pain is usually proportionate to the amount of violence and the quantity of blood or urine extravasated. The size of the tumor palpated may well depend also on these last 2 factors. Varying degrees of shock and collapse may be noted. Peritonitis, if present, is indicated by its usual symptoms. Diagnosis of rupture of the kidney is usually first shown by the hematuria, bearing in mind, however, that the more serious injuries may show little or no blood in the urine excepting at the very onset. The pain is practically always associated with the damaged kidney and may be of varying intensity. Tumor is not always felt because it is not always present, and may be impossible to palpate on account of muscular rigidity, abdominal distension or exquisite tenderness of the affected side. Cystoscopic examination is not always indicated and is not here included as a diagnostic measure.

In 2 cases I noted very little distension or rigidity but rather a sense of loss of muscular-tone as if palpating a fluctuating cavity. A prominent symptom of rupture of the kidney is frequency of urinating, in part due to the hematuria and probably reflex in some cases.

Treatment. This requires considerable acumen and experience on the part of the attendant. First comes simple rest in bed with anodynes, both externally and internally, to relieve the pain, and a process of watchful waiting. However, in the severe cases, this process must be intensified, and where shock and other evidences of severe bleeding are present, immediate incision and inspection of

the kidney will save many lives. One must use due caution in being sure that the shock is not due to the injury of some other portion of the body. Incision and drainage of the products of the rupture and even nephrectomy may later be necessary. If operation is decided upon, a cystoscopic examination should always be done in order to prove the presence of another functioning kidney. If operation is not decided upon, it is better to omit cystoscopy on account of the possible subsequent reaction or infection, so that the treatment resolves itself within a few hours into the question of operating or not, and upon the decision may rest the life of the patient. If the question appears to be at all doubtful, it is much safer to make an exploratory incision.

The question stressed in this paper is not the one where operation and nephrectomy takes place but that in which the injury has not been so severe but that the patient has recovered and the question of the percentage disability following such accidents must be considered. Only 4 cases are to be found in the literature to date where the functional end results have been studied.

Shupe reports a young man who fell 30 feet, hitting his back in the descent and landing on his feet on a hard pavement. He complained at once of renal colic and showed a slight tenderness in palpation of the left kidney. There was very little shock but considerable blood in the urine. His treatment consisted of rest in bed. In 2 days there was no macroscopic blood and in 1 week it had disappeared when examined by the microscope. Two weeks afterward cystoscopy was done and both kidneys found to be functioning normally.

Wesson reports 3 cases, one an 8 year old boy, run over by an automobile. There was right iliac fracture and crushing of the second and fourth lumbar vertebrae. Hematuria for a few days and, after 2 months had elapsed, a swelling in the right side developed. This was incised and a large amount of clear fluid containing urea was evacuated. Cystoscopy and functional tests at this time showed both kidneys to be normal.

A man, 41, developed a large swelling on

the left side 1 month after being struck by a car rail. The swelling was opened and about a gallon of urine drained. At this time cystoscopy showed no urine from the left kidney. One month later, after healing of the sinus, the functional output revealed a 50% lessening from the left kidney as compared with the right but neither casts nor evidence of infection.

A man, 45, fell 25 feet and struck on the right side, breaking several ribs. Hematuria lasted for 31 days. At the end of this time cystoscopy and functional tests showed a 50% reduction from the right kidney. Reëxamination after 1 year by cystoscope and pyelogram revealed the upper calix replaced by scar tissue, the surviving renal portion being entirely normal and functioning the same 50%.

My own personal experience has to do with 16 cases, in 2 of which nephrectomy was performed.

(1) This case was of a vocational school boy of 18, who was struck in the right side of the back by a block of wood insecurely fastened and flying from a lathe. He developed at once severe hematuria with renal colic. The pulse was much accelerated and palpation gave a sense of loss of tissue in the back muscles. After 12 hours without improvement operation was decided upon, cystoscopy performed, revealing a normal left kidney and active hematuria from the right. A large amount of extravasated blood was evacuated from the perirenal space and the kidney found to be comminuted and torn across into 2 parts.

(2) A male, 28, was jammed between 2 railroad cars. He had immediate shock and hematuria at first, which suddenly ceased. There was severe pain in the side and evidence of a mass. Immediate operation was decided upon, cystoscopy performed and the opposite kidney found to be functioning normally, with no function from the injured side. Exploration revealed the kidney torn from its pedicle and absolutely separated into 2 pieces.

(3) Male, 33, with a history of injury to the right side, accompanied by pain and hematuria, 4 years previously; roentgenographic study at that time was negative for calculus

pyonephrosis. There is no question but that now reveals an intensive pyuria, complete loss of function of the right kidney, a large mass of irregular shadows in the right renal area and, by pyelogram, an immense calculus pyonephrosis. There is no question but that infection and subsequent calculus formation occurred in this instance.

(4) Female, 30, referred by an attorney for examination relative to a suit for damages. Patient received an injury to the right kidney 2 years before, characterized by hematuria lasting 3 weeks with pain and tenderness. These symptoms were followed by chills and fever and a diagnosis was made of pyelitis of the right kidney on account of the symptoms and the presence of pus in the urine. Patient still complained of pain and pyuria and had started suit for damages. My cystoscopic and roentgenologic examination revealed the urine from the bladder and both kidneys to be free from pus, the renal functional test showed an equal and normal output from both kidneys and the pyelogram revealed a normal right renal pelvis.

(5) Male, 38, referred by attorney for examination. One and a half years before, after unusual muscular exertion, complained of extreme pain in the right side and hematuria for 4 days. Stated that he had severe pain in the back, becoming agonizing when bending over. He walked in a stiffened upright position when conscious of observation. When observed without his knowledge, seems to bend fairly freely. Cystoscopic and roentgenologic examination revealed a double or fused kidney on the opposite side, an equal and normal functional output from both kidneys, and pyelographic study failed to show any pathologic condition of his right kidney.

(6) Boy, 14, struck by automobile, evident injury to the left side and kidney, accompanied by fairly severe hematuria which gradually let up but continued for 21 days. Two months afterward examination revealed the urine microscopically free of blood or pus and by cystoscope both the kidneys were seen functioning equally and normally.

(7) Male, 28, painter, fell 20 feet from scaffold, striking on his back, complained of severe pain in the right side and at first urin-

ation noticed considerable amount of blood. Complicated by fracture of the twelfth rib. This patient was extremely restless and difficult to keep in bed. The physical signs and pain were probably aggravated by the rib fracture. No tumor could be palpated and the patient showed no signs of shock and although the hematuria was rather severe, vigilant expectant treatment was decided upon. No complication occurred and the patient made a good recovery. One year later was given a routine examination which revealed a perfect and equal function from both kidneys.

(8) Female, 32, entered the hospital with a history of having been thrown down and kicked in the back by her husband 4 months previously. She had hematuria and severe pain in the left kidney region. Under rest in bed the hematuria subsided but the pain continued in a lessened amount. In the last 3 weeks it has increased again and tenderness is more marked than before. At examination a tender, fluctuating swelling was noted in the left flank, and cystoscopic and roentgenologic study revealed a non-functioning calculus pyonephrosis of the left kidney, which no doubt antedated the injury. Incision of the loin abscess and subsequent nephrectomy was performed.

In 4 other cases of the usual type of injury, followed by hematuria and evidence of rupture of the kidney, I have been able to make cystoscopic and roentgenologic study going over a period of 1-4 years subsequent to the injury. In all these cases there is absolutely no evidence of any deleterious effect upon the functional capacity of the kidney.

SUMMARY

After careful perusal of the literature of the past 10 years as published by Wesson, Fox, Pisani, Delzell & Harrah, Campbell, Bailey, Graves & Casper, Jefferson, Klingensmith, Marshall, Reese, Shupe and Young, and my own experience, I believe that the result of traumatism to the kidney as viewed in terms of the percentage loss of functional disability, depends entirely upon the amount and type of destruction of the organ and the presence or absence of complications, particularly

infection. My study of those patients injured and not subjected to nephrectomy, who have recovered without the intervention of infection, would surely prove that by far the major number of ordinary cases of rupture of the kidney recover without any appreciable diminution in the functional ability of the injured kidney. If infection takes place and it is relegated to the renal pelvis alone, there may or may not be alteration in the kidney function. Such cases should be easily curable under the attention of a competent urologist by renal lavage and urinary antisepsis. If infection includes also the parenchyma, then serious results are bound to follow, as pyelonephritis, pyelonephrosis and possible renal calculus are almost sure to develop. As has heretofore been noted, the presence of pre-existing renal disease must be taken into consideration in all kidney injuries and it will at times become a difficult problem to satisfy one's self in this matter. In all events the exact conditions following traumatism to the kidney can be absolutely checked up by the present-day methods of cystoscopic and roentgenologic examinations.

MALIGNANT TUMORS OF THE TESTICLE*

D. F. BENTLEY, M.D.,
Camden, N. J.

It is not possible, within the scope of a short paper to enter into a detailed discussion of the pathologic classification and histologic origin of tumors of the testicle, nor does the author feel at all competent to do so. A very casual survey of the literature is sufficient to convince anyone that there is little unity of opinion, even among those who are admittedly authorities on the subject. One author, in a very complete monograph, states that it is doubtful if there is any subject about which there exists so much confusion. On one thing only does there appear to be agreement;

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that the clinical outlook for the unfortunate patient leaves much to be desired.

About 0.5% of all tumors in the male are testicular. Hinman reported the incidence to be 0.63% in a general study of hospital admissions. Southam and Linell found 38 such cases in 27,000 hospital admissions. It is, therefore, probably correct for us to assume from these and other studies that the condition is not common. Even in a urologic service, Young found but 25 in 12,000 cases.

Most authors are of the opinion that the ectopic testis is especially susceptible to malignant disease; one places the incidence at 1:200. Keyes states that this is to be expected, because the intraabdominal, or inguinal, testicle is abnormal to begin with.

It is stated that these growths are most apt to appear during the time of most virile sexual activity; the commonest time of appearance being at about 35 years of age. The importance of trauma as a causative agent is questioned somewhat, but most writers are of the opinion that a good history of trauma is easily obtained in about one-half of all cases. Grassmann reported a series of cases, most of which occurred among workmen who were particularly apt to injure and bump the testes while at their work. Dew reports a large number of cases in which trauma seemed to have a definite causative effect. Two cases in our own series were so definitely associated with a known trauma that compensation was allowed under the workman's compensation law.

The patient consulting his physician for the first time, usually presents a fair-sized swelling of one or the other testicle, which may have come rapidly, or its growth may have been observed over a period of months or even years. The skin over the mass is usually movable, and there may be noticeable enlargement of the veins, which is probably of diagnostic importance. Usually there is little, if any, pain associated with the condition; although some patients complain of pain as the most important symptom. There is often a dull ache described, and this is due to weight of the tumor pulling on the spermatic cord.

The presence of acute urethral infection

does not rule out malignant disease, and cases have been reported in which such infection was coexistent. Peculiar appearing epididymitis, must be looked on with suspicion. We recently saw a case in which this mistake was made.

Hydrocele and hematocele must be differentiated, and it is well to remember that these conditions are not infrequently associated with testicular tumors. The epididymis is seldom involved early; and if it is possible to palpate the epididymis this is often a means of differentiating new growths from hydrocele. Two other conditions to be ruled out are tuberculous epididymo-orchitis, and gumma. These are usually easily distinguished by clinical and laboratory tests. In spite of care in diagnosis, and careful preoperative study, mistakes have, and still will be made.

The gross characteristics of these tumors vary greatly. The tumor may resemble a dermoid cyst, or it may show mixed tissues; may be solid, cystic, or both; or it may show the areas of necrosis and hemorrhage common in rapidly growing malignancies. Arising in the rete testis, the tumor seems to push the normal structures before it, compressing and thereby destroying them. A ring of compressed, normal testicular substance is frequently seen between the tumor and the encapsulating tunica albuginea. The epididymis is rarely invaded, but is apt to be found stretched over the rapidly growing neoplastic tissues.

Metastases are apt to be entirely by the lymphatics. In true sarcoma there is an increasing liability to spread through the blood channels. The lymphatics of the testis pass up along the spermatic cord and terminate in a number of glands situated behind the peritoneum and in front of the great vessels, below the level of the renal arteries. Extension from these glands is usually along the course of the thoracic duct to the mediastinum, lungs, and the left infraclavicular region. Early pulmonary metastasis may occur in the absence of any palpable retroperitoneal glands, and for this reason it is important to make radiographic studies to rule out this complication. Involvement of the inguinal

lymph nodes does not occur unless there has been invasion of the scrotum.

In 1896, Wilms observed that many of these tumors showed evidence of tridermal origin. Most observers since then have concurred in this belief. In 1906, Chevassu, in reporting a large series of cases, observed that approximately 50% had their origin in the cells of the seminiferous tubules. To this type of tumor he gave the name seminoma. These tumors are composed of large spheroid cells, arranged in strands or acini, and separated by a supporting network of connective tissue of varying denseness. They are uniform, and the cytoplasm is fairly abundant. The nucleus is of moderate size and is usually described as staining smoothly. There is round cell infiltration, most marked about the trabeculae, and occasionally extending into the cellular mass. Necrosis and hemorrhage are most apt to be present in that part of the growth having the most delicate supporting stroma. The remaining tumors in Chevassu's series, were regarded as embryomas of various types; 1 he classed as a sarcoma. Ewing in 1911, and in numerous later writings, describes all testicular tumors as tridermal in nature, and classifies them all as teratomas. If there appears to be but a single type of cell present, he takes the stand that this has overgrown the other structures, and that if careful enough search is made the teratomatous nature of the growth can be proved. We have found this very difficult to do, and so have not tried to classify our cases according to Ewing.

Dew, in a recent monograph, classified these growths into 5 groups, and his classification is very similar to that of Nicholson and other writers. It takes into consideration the tridermal origin, and also the so-called seminoma of Chevassu. He divides them as follows: Teratoma—no carcinoma found; teratoma—carcinoma; teratoma—chorion carcinoma; carcinoma—seminoma; sarcoma.

Our own series of cases seemed to fit in best with this classification.

In the past 5 years, there have been studied in the Urologic and Surgical Services of Cooper Hospital 11 cases of testicular tumor, as follows: teratoma—no carcinoma found—

1; teratoma—adenocarcinoma—2; carcinoma—seminoma—7; sarcoma, 1.

CASE REPORTS

(1) Teratoma, no carcinoma found. G. M., aged 40, was admitted March 16, 1926, to the Urologic Service. In 1907 he had the left testis removed for a tumor, the exact nature of which could not be learned. Six months prior to admission he noticed swelling of the right testis; not painful, although for the previous 2 weeks, the weight had produced a dragging pain in the side. The tumor was removed, and the patient left the hospital in 7 days with the wound entirely healed. There has been no recurrence. The tumor measured 5x4x2 inches. It was solid with cystic areas; the cysts filled with gelatinous material. Histologically, there was a fibrous matrix with hyperplastic epithelial glandular acini. The epithelium was regularly arranged on a definite basement membrane, and showed good differentiation. Cells of muscular origin were present, as were also cells of epithelial character suggesting an altogether different origin from those forming the acini. There was nothing about the sections to suggest malignancy. The tumor is a benign teratoma.

(2) Teratoma, adenocarcinoma. L. S. G., aged 20, white, was admitted January 19, 1926. Six weeks prior to admission he struck the right testis with a large pair of pliers. There was some distress and swelling at the time. This continued to enlarge until he consulted us when the testis was as large as a hen's egg. The tumor was removed by simple castration, and subsequent x-ray treatment was given. The patient left the hospital January 31, and reported back for radiation. He is, at present, well. The tumor measured 3x4x2½ in., and was heavy and firm. On cutting, the surface exuded blood, and the color was pinkish yellow. There was one area close to the tunica which seemed to consist of normal testicular substance. Microscopically, there was active hyperplasia and irregular infiltration by an aberrant type of epithelial cells arranged in acini-like plugs, which in some areas appeared to be solid. The matrix was of undifferentiated fibrous tissue. Areas of necrosis were numerous, probably due to defective blood supply. The growth is probably a teratoma in which the adenocarcinomatous element has overgrown the other structures.

(3) Teratoma, adenocarcinoma. G. O., aged 30, Italian, admitted to the Urologic Service November 22, 1926, with a swelling of the left testis. Three months before he had struck the organ with a wrench and had been forced to stop work and report to the company physician. This swelling partially subsided, and then began to increase. The testicle was removed and the patient was treated by x-ray irradiation until the time of his death 9 months later. The mass of the tumor measured 7 cm. in diameter. The body of the testis was the site of the tumor, which had penetrated the tunica in several places. In one spot, it was apparently attached to the overlying skin of the scrotum. On section, the growth seemed to be divided into sections by fibrous septa. There were a number of small cystic areas; some softening and necrosis was also observed. The spermatic cord seemed to be thickened. Histologically, there was irregular hyperplasia of an atypical type of epithelial cells arranged in irregular tube-like structures; considerable necrosis, apparently from interference with the blood supply.

(4) Carcinoma, seminoma. J. S. S., aged 38, white, admitted July 21, 1925. Four years previously he had noticed swelling of the left testicle

following an injury. This enlargement had been gradual until 4 months before admission, when it became quite marked. At the time of admission the tumor was 6 in. in diameter. The tumor was removed and the patient treated with x-rays for 3 months, at two-weekly intervals. He was seen 1 year ago, and was in excellent health. The tumor measured 12 cm. in diameter. It cut readily and appeared to be necrotic in spots; apparently encapsulated. Histologically, the tumor is composed of fibrous stroma infiltrated by a large cell which seems to be epithelial in type. In places there seems to be no definite arrangement, but in some areas acini formation seemed to be suggested. The cell is composed of a moderate amount of cytoplasm in which is a large nucleus, rich in chromatin, and having a prominent nucleolus. In some, the nucleus seemed to be lobulated. The growth is undoubtedly malignant and is apparently a carcinoma having its origin in the cells of the seminiferous tubules.

(5) W. P. B., aged 54, white, admitted April 13, 1926. About 1½ years before admission he had noticed a swelling of the left testicle. This growth at first had been very gradual but several months before coming to hospital had become more rapid, until it measured 6 in. diameter. The growth was removed and the patient was given x-ray treatment. At the time of operation there was found a definite extension into the retroperitoneal glands, associated with marked enlargement and infiltration of the cord. The patient died 10 months later from generalized metastasis. The tumor removed measured 14x9x9 cm. From the upper pole continued the much thickened spermatic cord. The bulk of the growth was composed of firm, yellowish white tissue arranged roughly in lobules. The upper pole was occupied by a small cyst, containing clear fluid. Histologically, there was marked hyperplasia of irregular character, of cells of one general type; they are large, the nuclei rich in chromatin, and show bizarre forms. The growth is a carcinoma, apparently having origin in the epithelium of the seminal tubules.

(6) G. M. P., aged 38, white, admitted September 16, 1925. Sixteen years before he had injured the right testicle while playing base-ball. Ever since, the right testicle has been slightly larger than its fellow. After about 1 year there started a swelling of this testis, which has continued to date of admission. The testicle was removed, and the patient left the hospital in 10 days. He died 10 months later from metastases which involved the retroperitoneal glands, lungs and mediastinum. The tumor removed measured 6x5x5 cm. It was soft, cut readily and was of uniform yellowish color. The tunica was not invaded. Histologically, there was irregular infiltration by epithelial cells; occasionally an abortive attempt at acini formation. The tumor is a carcinoma, apparently springing from the seminiferous tubules.

(7) G. B., aged 38, Italian, admitted January 27, 1927. There had been an enlargement of the left testicle during the previous 6 months. The testicle was removed, and following operation x-ray treatment was given. At operation definite involvement of the cord was observed. The patient returned to the hospital 3 months later to die with extensive retroperitoneal, mediastinal, pulmonary, and glandular metastases in the left supraclavicular space. The tumor removed measured 10 by 6.5 cm. The testicular investments were thickened; enlargement in the body of the testis; cord was thickened. On cut section, the mass was of friable tissue, and some areas of hemorrhage were noted. Microscopically, there was irregular hyperplasia of cells of epithelial character. These ap-

parently had origin in the seminal tubules. The cells were found infiltrating the vascular supply of the capsule. There was considerable necrosis. Only one type of tumor cell was observed. The tumor is a carcinoma.

(8) L. S., aged 52, white, admitted December 15, 1926. Seven years prior to admission, the patient had a fall and landed astride a board. Both testes were enormously swollen, and he was bed-fast for several weeks. There was some atrophy of the left testis after this injury. Three years later a small growth was noted in this testis; 6 months before coming to hospital this started to grow rapidly. The testis was removed, and there was an uneventful operative recovery. This patient did not have any x-ray therapy. He died 14 months later from extensive metastases. The tumor was about 5x5x12 cm. The epididymis and the body of the testicle were enlarged. The tunica was thickened and contained a small amount of bloody fluid. The cut surface was yellowish in color and there were areas of necrosis. Histologically, the tumor was composed of a heavy supporting fibrous tissue framework, and irregularly closely packed masses of epithelial cells. These were rich in chromatin, and showed vesicular nuclei. The cytoplasm was moderately abundant. For the most part there was no regularity of arrangement. In some areas there was a suggestion of acini formation. A considerable portion of the mass was necrotic, probably due to defective blood supply. The tumor is a carcinoma, apparently arising from the seminal tubules.

(9) G. W., aged 33, white, admitted August 2, 1927. The patient had noticed a small swelling of the left testicle for 3 weeks. There was a definite history of injury; no pain but a sensation of weight, and aching in the back. The tumor was removed and the patient left the hospital 10 days later. X-ray therapy was not given. He returned to the hospital 1 month later with metastases, and after a few days in the ward left for his home. He died several weeks later. The mass was approximately 9 cm. in diameter; firm, and the cut surface was of a yellowish color; necrotic areas were noted. Histologically, there was irregular infiltration by a large epithelial cell. There was little attempt made at acini formation. The fibrous supporting structure was delicate except about the trabeculae. There was some round cell infiltration, especially about the connective tissue structures. The tumor is a carcinoma, apparently having origin in the epithelium of the seminal tubules.

(10) J. C., aged 47, white, admitted June 28, 1928. For 2 years he had noticed a mass in the left testis. About 4 months ago this took on active growth and he was led to consult his physician. He has had quite severe pain in the testicle and groin. The tumor was removed and the patient subsequently given x-ray treatment. At this time the patient is in excellent health, and is still receiving irradiation. The tumor measured approximately 6 cm. in diameter and was smooth. There was some engorgement of the veins about the tunica vaginalis testis. The spermatic cord was apparently normal. On cut section the mass was yellowish, soft, and even. There were a number of fibrous septa dividing the tumor into lobules. The interior of the testicle was packed with large irregular cells, many of which showed nuclear figures. Cytoplasm was abundant. There was little evidence of a basement membrane; no evidence of order in arrangement. The cell was evidently of epithelial origin and originated apparently in the seminal epithelium. There was no infiltration of the capsule. The condition is a carcinoma.

(11) Sarcoma. H. S., aged 18, white, admitted August 25, 1925. Six months prior to admission he noticed a swelling in the left testicle; not painful, and until 2 weeks prior to coming to the hospital had been scarcely noticeable. At this time it took on rapid growth, and at time of admission was 11x6x6 cm. in size, and was producing pain in the left side of the back. The tumor was removed, and the patient given x-ray therapy. In his case deep therapy was used. The patient left the hospital and went home. He died 4 months after from generalized metastasis. Histologically, there were large areas of necrosis, due to faulty blood supply. The bulk of the tumor was composed of cells of a more or less uniform type; no regular arrangement, the cells apparently growing at random through the tissues; cells tend to have a round or oval nucleus, and the cytoplasm very scanty. From its morphology and arrangement it had apparently a mesothelial origin, and should therefore be classed as a sarcoma.

The treatment of these conditions is very discouraging. The operation of orchidectomy, while practically free from operative mortality, is not successful in the way of cure; the average is a little better than 6%. Tanner reported a series of 465 cases followed up, of which only 25 were well after 4 years.

Radical operation with removal of the lymphatics probably offers a better chance of success, but it is difficult to get the patient to consider such an extensive surgical procedure. Hinman, who has had very extensive experience, and who has carefully searched the literature for the results of others, reported an operative mortality of 12%. In a series of 79 cases, there were 29 survivals, and only 6 of these had been followed for 4 years.

Barringer and Dean, working at the Memorial Hospital in New York, have employed a large radium dosage followed by removal of the testicular growth some weeks later, and feel that their results have been most encouraging.

Our own series has been as discouraging as most others; of 11 cases studied, 4 are alive at this time; 1 was a teratoma in which we could find no malignancy, and 1 patient is living and apparently well 1 year after operation. All the surviving malignant cases were treated by orchidectomy followed by x-ray irradiation. Of the fatal cases, 3 were given irradiation and 3 were not. We feel that this is a worth while adjunct to surgery.

SUMMARY

There are here reported 11 cases of testicular tumor; 10 were malignant; 1 was a nonmalignant teratoma; 7 of the malignant growths were carcinomas of seminal origin; 2 were adenocarcinomatous development of teratoma; 1 was what we believe to be a sarcoma. These growths are highly malignant, and metastasize rapidly and extensively.

We feel that x-rays should be used as an adjunct to surgery in treatment.

CONGENITAL CARCINOMA OF THE TESTICLE IN AN INFANT

WILLIAM LONDON, M.D.,

Perth Amboy, N. J.

Because of the rarity of tumors of the male genitalia in infancy, and particularly congenital cancer of the testicle, I feel it worth while to report this case.

R. V., a male infant, was brought to me at the age of 3 months. The mother had noticed a mass present in the scrotum at birth, which seemed to her about 3 in. in diameter, globular and firm. It apparently had not changed in size since birth, and did not seem to cause any pain, distress, or other symptoms. He was the first child, full term, normal delivery, apparently well. Birth weight 7 lb. 4 oz. Breast fed since birth and gaining well. Family history negative.

Examination revealed a well-nourished, male infant of 14½ lb. Abdomen showed a small umbilical hernia. Liver and spleen were not palpable. The lymph nodes were negative, no inguinal nodes palpable. The left testicle was normal, the right markedly enlarged—the diameters were 2½x3 in.; apparently not tender; of a firm but elastic consistency and did not transmit light.

A tentative diagnosis of teratoma was made and the child was referred to Dr. Edward D. Truesdell, New York City, for operation. A tumor involving the right testicle was removed with ease, being encapsulated.

The specimen removed at operation, in the

gross, was a solid tumor, of elastic consistency. On section, it was glandular but not cystic. It was submitted to Dr. Francis Carter Wood for examination, and the report follows: "Sections of tissue show the structure of a carcinoma. It is a cellular tumor with many glands and parts of glands formed by the epithelium of the neoplasm. Such tumors are frequently called teratoma but it would be necessary to section many areas to prove such an origin. It is in any case malignant."

The child did well after operation and the wound healed completely in about 1 month. There was no evidence of recurrence of the tumor. At 7 months he weighed 19 lb., was in excellent physical condition, had 2 teeth and sat up well. He was completely weaned at 9 months, taking a whole milk mixture, cereal, orange juice, vegetable broth, stewed fruit and cod-liver oil. At 19 months he weighed 26 lb., nutrition excellent, had 16 teeth, walked, talked and there was no evidence of any mass in the abdomen nor any enlarged lymph nodes. Liver and spleen were not palpable and no evidence of recurrence of the tumor of the testicle. He was taking a good general diet for a child of his age. At 21 months he began to complain of some vague abdominal pain and about this time developed an upper respiratory infection with an acute tonsillitis and double otitis media. Both ear drums were incised, pus obtained, the ears discharged for about 2 weeks, and then the child seemed well for about 1 month. Then became very restless; temperature between 102° and 103° F; appetite very poor; no vomiting; stools normal. On examination at this time he showed a large, firm, irregular mass in left hypochondrium and a small, irregular mass in right hypochondrium. Some small, firm, irregular masses could be palpated here and there throughout the abdomen. The rest of the examination was negative; no lymph nodes enlarged and the child's general condition and nutrition were good. He was referred again to Dr. Truesdell who made a diagnosis of inoperable carcinomatosis of the abdomen, and 12 days later the child died after several convulsions. No autopsy was obtained.

REVIEW OF LITERATURE

Tumors of the male genitalia are rare in infancy. Of the 19 cases collected by Steffen, 6 involved the prostate and 13 the testicle. Quoting from Pfaundler and Schlossman: "Cancerous degeneration of the prostate has hitherto been observed only in children up to 8 years of age; the youngest was 6 months old. The tumor is generally a medullary one. It may attain considerable size and may produce symptoms due to displacement of pelvic organs. A point of importance from the standpoint of diagnosis is that the neighboring inguinal glands are involved early. Pain and difficulty on urination are the earliest symptoms. The general health soon suffers. The diagnosis is established by palpation through the rectum. The fatal termination which as a rule occurs in from 3 to 7 months, cannot be averted even by operative interference."

At the onset, cancer of the testicle is not accompanied by any symptoms. It seldom causes pain. As it increases in size it causes discomfort by weight, general health is impaired and a decided cachexia appears. W. B. Coley reports a case of embryonal carcinoma of the testicle in an infant. The tumor was removed and in 3 weeks returned. It was again removed but recurred. It was removed a third time. Following the last operation the patient was given injections of mixed toxin of bacillus erysipelas and prodigiosus. When the case was reported 7 months later there was no evidence of recurrence. Prognosis is unfavorable on account of the great tendency to metastasis—only early operation can promise hope of cure.

A difference of opinion exists regarding the relative frequency of sarcoma and carcinoma. Ewing states that this formerly extensive group of tumors has been narrowed by the elimination of many cases of carcinoma which were formerly regarded as alveolar sarcoma. A great many other authors consider sarcoma the more frequent.

Teratoma and dermoid cysts are congenital growths, the dermoid cyst containing embryonal material like skin, bones, hair, teeth and cartilage; while the teratoma constitut

ixed forms of tumors containing congenital remnants of blastodermic tissue and chorio-epithelium as their distinguishing characteristics. In general they present the features of carcinoma, sarcoma or of mixed tumors and are decidedly malignant. Their early recognition and removal is of greatest importance. Dermoid cysts of the testis may be incorporated within the gland or they may displace it to one side causing pressure atrophy, or they may prevent development of the testis. The tumor may delay or prevent proper descent of the testis. It may, however, develop in the scrotal wall and subsequently become connected with the testis.

These tumors, while congenital, may be so small as to attract no attention until the period of puberty, when increased growth and activity bring them into prominence. Diagnosis is usually not difficult. Removal of the tumor is the only treatment recommended. In certain cases an exploratory incision may be necessary, or puncture with a fine needle may reveal bone or teeth, or these may be felt with a probe passed through a fistula. Their congenital origin is of the greatest importance in diagnosis.

UROLOGIC SYMPTOMS; THEIR SIGNIFICANCE*

ROBERT L. MCKIERNAN, M.D.,
Newark, N. J.

The purpose of this paper, while differing from the usual symposium form, is to bring home to the general practitioner the importance of every-day urologic signs and to present in terms which will be best understood by him in his every-day contact with the sick the necessity for accurate and early diagnosis and treatment. In this way I shall endeavor to stick to the actual and common conditions and cases without quoting the unusual.

It was my belief that the casual examination and history of patients, with prescriptions for symptoms, was passed. As the

years go by and one gets busier, he seeks short cuts to diagnosis, which is a fallacy. One should seek the cause, and what may seem an ordinary case on the surface, if properly looked into, often will reveal something more important.

I shall probably be called radical and lay myself open to criticism, but this is the time and place to stimulate the enthusiasm of the profession for preventive medicine. The most vital topics in urology for consideration are malignancy and venereal diseases, because they are most often referred to the urologist for special attention. Too often have patients been carried along and treated for months without result, thereby undermining the confidence of the public in the profession. Consideration of material loss should never be allowed for a moment to affect the logical procedure of referring patients for proper treatment. Whenever patients are referred to specialists, the credit redounding to the general practitioner is greater and the satisfaction and confidence of the patient gives him returns in various ways.

There should be no doubt after repeated experience that the treatment of most genito-urinary conditions is best done by the urologist. The profession has been traditionally smug and complacent in its dignity, feeling that we have scaled the heights in our duty to mankind. Do you not realize that the specter of clinics, the free and part-pay, has aroused the thinking men of the profession to the expediency of investigating ourselves, and asking why? May I venture to say that there would be fewer of these clinics if the profession would cast aside all selfishness and jealousy which are so detrimental to the welfare of the patient. We must remember that we are in an advanced age, that the public wants to know the whys and wherefores of its ailments. Through the medium of various health bureaus and our own American Medical Association, the public knowledge has been greatly advanced in matters pertaining to health.

How are we ever to combat the spread of gonorrhea, and this also applies to carcinoma, unless it is treated and controlled by those with experience? It is no great exaggeration

* (Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 14, 1929.)

to say that at least 40% of the diseases encountered in medicine and surgery are directly or indirectly the result of a venereal condition. In the light of most recent advances there does not seem to be much excuse for discharging patients as cured without taking a prostatic culture, and in this way to materially cut down the spread of infection by subjecting them to further treatment as the result of cultural findings when so many isolated foci exist and may harbor the gonococcus. This brings us to the subject of urethritis as the first topic to be taken in this paper.

The term urethritis is used advisedly as it is usually the symptom of a certain type of condition existing in the urethra; posterior urethritis, verumontanitis, chronic prostatitis, seminal vesiculitis, epididymitis. The infecting organisms are various, the chief one being the gonococcus.

The general practitioner is called upon first to treat urethritis in its earliest stages and there is no question of the enormous economic importance of this disease because of its far-reaching effects. There is no doubt that secrecy and shame materially influence the prevalence of this condition. The mode of treatment in the hands of the general practitioner has also been a factor, comprising as it did pills of all kinds and varieties, and some sanitary measures. The average general practitioner does not, and should not, care to handle these cases as they should be treated because he is not equipped nor has he the necessary experience. Many physicians overlook the history as regards the acuteness of these conditions and other associated signs, such as dysuria, frequency, backache and malaise. It is well to bear in mind that there are few, if any, cases of the true, acute type which occur later than 72 hours after exposure. This fact will no doubt be concurred in if a close check-up is made. The fact that 95%, at least, of gonorrheal conditions have posterior and prostatic complications, necessitates prolonged treatment by the specialist.

The patient tells you he has a discharge from his urethra, with or without burning on urination, and determination as to whether

this is a true virginal, first attack depends upon physical and bacteriologic findings. Casual treatment of a chronic case or urethritis yields no results. The urologist is not infallible as to cure, but in 9 out of 10 cases his chances of success are greater because he has the experience and knowledge.

Retention. One of the most frequent conditions encountered and one which you have been accustomed to relieve is that of urine retention. The relief is temporary, of course; then the cause has to be determined. It may be due to several factors. Prostatism, the most common of all, is met with in the male past middle-age, and is usually obstructive. Prostatism is a common term for various prostatic conditions which involve structural changes in the gland. We have the simple hypertrophy, or adenoma, of the benign type—more truly termed commisural hypertrophy; and the sclerotic type when the changes are those of malignant origin with or without severe retention. Determination of the category in which each particular case falls can only be made by minute cystoscopic and bimanual examination. When there is ability to pass urine and still have considerable residual it is most always noticed that the overflow will cause dribbling and discomfort, with accompanying dysuria, frequency and nocturia, according to whether retention is complete or partial.

May I call your attention to the fact that diverticulum of the bladder is frequently overlooked; occurring in the urethra, it may cause distention or retention in the sac, with accompanying signs of dribbling, frequency, tenesmus and nocturia. It is well also to note that tabes will cause retention by involvement of the posterior column. Calculus of the bladder is another condition which may cause retention, although this is mostly confined to the large or giant type of calculus and will be further considered under the subject of hematuria.

Hematuria. The significance of this symptom has in the past been too readily overlooked. The presence of blood or pus in the urine is always indicative of pathology. How many times have various remedies and pre-

scriptions been given to cure this condition which is only a symptom of the following conditions: in the urethra we may have stricture, papilloma, calculus, prostatic hypertrophy, carcinoma or median bar obstruction; in the bladder calculus or carcinoma of distinctive type. These conditions apply also to the ureters and the kidneys, and in the kidney any of the following malignant types are apt to be found: polycystic kidney, adenocarcinoma, hypernephroma, papilloma, and so-called idiopathic or essential hematuria.

Cystitis is a term which has covered a multitude of sins. You can readily understand from what has just been stated the absolute necessity of cystoscopy and pyelography, as well as cystography, and the necessity for accurate diagnosis and treatment in most cases.

I must emphasize the importance of, and the absolute necessity for, observation of these conditions by the urologist in most instances. You can well realize the imperative need for early diagnosis, particularly as regards malignant conditions of the urinary tract, since there is a high percentage of carcinoma found there. All of our great authorities have time and again advocated that early diagnosis of malignancy is vital to the welfare of the patient, and that the presence of blood in the urine requires immediate investigation.

Impotence. This is a problem with which you are frequently confronted, the cause of which must be definitely ascertained before recommendations as to course of treatment can be given. If you will bear in mind the principal causes, treatment will be made easier. The chief of these are lues, chronic prostatitis, masturbation, continence and the various psychopathic attributes. Careful inquiry into the history of the patient will in the majority of cases give a tangible clue. But careful physical and, in particular thorough genito-urinary observation—including cystoscopy, urinalysis, Wassermann test and specimens for determination of presence or absence of spermatozoa, should always be made.

ETIOLOGY AND TREATMENT OF CHOREA*

E. L. MINARD, M.D.,

East Orange, N. J.

From my observation this disease seems to be increasing in frequency, and being a rather prolonged and tedious disease to treat, is not infrequently allowed to get away from the family physician. Then, too, the patient is often in need of complete rest which can be given only in bed; very frequently this entails hospital care. Perhaps the family physician has an idea that chorea is not a disease requiring any special care and allows the case to drift along until the mother becomes impatient, and goes elsewhere for relief.

ETIOLOGY

(1) Sex is an etiologic factor in this condition, girls being affected twice as frequently as boys; the English give the ratio as 3:1. I was under the impression that I had seen as many boys as girls, but on looking it up find my own cases 60% females to 40% males; this is not absolute as I have not gone back more than 4 years. The ratio is much higher after 12 years of age when about 90% are females.

(2) Age. It is more prevalent between 7 and 12 years of age; and of course it may recur and frequently does, especially in girls of an older age.

(3) Family. There is very frequently a rheumatic history in the parents, either or both; 5 times as many cases give this history of rheumatic parents as do not.

(4) Environment is important; a child under the influence of neurotic parents, or nagging relatives, or subject to rheumatic infections from contact is "predisposed".

(5) Previous illness causing lowered resistance; disturbances caused by improper feeding; diseased tonsils; adenoids; decayed teeth; or other residual foci of infection.

(6) The exciting cause is frequently

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blamed for the whole condition; fright or nervous shock; nervous strain; overwork in school; family cares and responsibilities; or increased effort by the child who is striving to make rapid advancement or trying for some prize in school.

(7) The "choreic type": thin, tall, of nervous parents, very bright in school, doing the work of the class ahead.

TREATMENT

All cases require treatment; it is not a self-limited disease. Vaccines, autogenous or stock, have been of no help, either in my own cases or in the experience of the authors whose writings I have read, and so far as I can find no results are to be expected from serums. Kerley reports that no benefit was derived from the re-injection of blood serum into the spinal canal as advised by Goodman.

Rest is the most important part of the treatment—rest, mentally and physically—both as an aid to the choreic condition and as a preventive for the complications to be looked for in this disease. In order to get this rest, it may be necessary to remove the patient from home influences, where the directions of the physician may be carried out without outside interference; these children are frequently of the type known as "spoiled", and it may be impossible to carry out the necessary care where the parents may be at the call of the child. Then, too, some other child may interfere with complete rest, so it is frequently best to remove the patient to a hospital where family influences are not allowed to interfere, and where under the proper supervision the child can get the necessary rest.

Sedatives and warm baths will quiet the patient and help relax the tension, as will gentle massage. Drugs as sedatives, may be indicated and usually have first choice; luminal is very useful and chloral may be required in selected cases. Morphin is rarely indicated, but for some of the older patients codein may be safely used.

Diets should be nourishing and easily digested. As many of these patients are unable to feed themselves, and must be fed by the nurse or some other attendant, it is useless to

put food before them to be neglected or wasted, as I have seen many times. Milk and milk products, cereals, and it is sometimes necessary to give concentrated foods in order to satisfy the caloric requirements of the child. Vegetables and fruits. No meats nor sweets; in fact, the diet is such as can be given to any rheumatic patient.

Specific treatment, if there be any, is anti-rheumatic. Dr. Kerley recommends this kind of treatment, while some English and some German authors claim it has no effect. It has been my routine for several years to begin treatment with salicylates, usually the salicylate of soda combined with rhubarb and soda mixture; it is fairly well borne by the stomach and the soda increases effectiveness of the salicylate. Sometimes the salicylate of strontium may be indicated. The salicylates are given for 5-7 days, or until the effect of the drug is apparent. This is followed by administration of some preparation of arsenic, usually Fowler's solution, in carefully regulated dosage, beginning with 2-3 drops 3 times daily, and increasing carefully up to 10 or 12 drops; as some children do not take arsenic well, great care is necessary. Having seen 2 cases of poisoning from teaspoonful doses of Fowler's solution accidentally given, I do not give it in the straight form but in solution, made up so that each teaspoonful represents the amount of arsenic desired; and am always watchful for the early symptoms of poisoning—diarrhea, cramps and puffy eyelids. As an adjunct, in severe cases, I sometimes give cacodylate of soda intramuscularly 2 or 3 times a week; no doubt arsphenamin or neo-arsphenamin could be used as others have recommended. Morse claims that arsenic has no effect in chorea, and some agree with him; on the other hand, Feer advises arsenic, and reports benefit from its use, and he has many supporters. Not infrequently the heart condition, associated with this disease, becomes of greater importance than the chorea and needs special care.

For the ultimate cure, remove the primary cause if discoverable. This will usually be found as a residual focus of infection in sinus tonsil area or teeth, or in a gastro-intestinal disturbance. Home responsibilities should be

removed. If the child is carrying too much school work, it may be advisable to reduce this or even to give up school for a time altogether. In many cases a change of environment alone will give the necessary rest, or help to prevent a recurrence.

SUMMARY

Chorea is caused by the same conditions that produce rheumatism and, in most cases, responds to the same treatment. It is my belief that chorea is only a form of rheumatism affecting the central nervous system.

DISCUSSION

Dr. R. A. Shirrefs (Elizabeth): In the line of treatment Dr. Minard failed to mention one thing which we in our service at the hospital find of considerable value. I do not know why, but these chorea patients do respond to regular and increasing doses of ultra-violet rays, in addition to the treatment that he has outlined.

Dr. Charles I. Silk (Perth Amboy): I would like to ask the speaker what evidence there is that meats are detrimental in these cases? I understand that Dr. Minard prohibits meats. I would also like to know whether the vitamins have any effect; i. e., does vitamin deficiency play any rôle in the production of chorea?

Dr. Stanley H. Nichols (Long Branch): I am sure we have all enjoyed this splendid paper. It is a subject close to my heart because I have worked in this field a good deal. I think we all feel that we wish we could think that tonsils were the cause of chorea. We do feel that they are an adjunct, but whether they are the entering source of infection in certain cases we do not know. If we can find the cause of chorea we can find the cause of the whole series of rheumatic infections, and it would simplify the whole subject, which is perhaps one of the greatest subjects before the practitioner today in the study of childhood diseases. The neurologists do not entirely agree with us in some respects as to chorea. Some of them believe that 80 or 90% of them are rheumatic. Some are inclined to make the percentage due to other sources much larger. All of the men working in the rheumatic field are agreed that rheumatism is a streptococcal infection, but as to its nature I think few of us, except Small, of Philadelphia, are quite settled.

Chorea is probably a generalized encephalitis and should be looked upon and treated as such. Whether it is in the cerebral cortex, as some German authorities have claimed, I do not know, but that it is caused by some focal infection which induces irritation is generally believed, whether by Aschoff bodies or not; and whether tonsil removal decides the healing of the case is something that we are still studying.

I do not think there is any evidence at the present time that meat has any effect on these patients. However, in putting chorea or cardiac cases at rest—because the treatment of both is very similar—we reduce the meat diet at our clinic because it is well known that it takes considerable activity to burn up proteins and it seems wise to reduce the meat and the heavier

types of protein for a time and feed them again when the patients are more active.

The use of arsenic is a debatable question. It probably has its effect on the nutrition rather than on the disease itself. Arsenic probably affects the blood where rest simply improves the nutrition of the child.

The real reason for mental rest is because the encephalitic irritation that is going on requires all forms of rest and I think it is a very wise thing to treat these patients as though they were peculiar types of encephalitis and do need mental as well as physical rest. I feel with Dr. Minard that these children should be strictly kept out of school and away from all that sort of stimulation that requires mental effort.

At one of our discussions on rheumatic fever at the Fifth Avenue Hospital this winter one of the doctors who has been studying some of the factors in connection with chorea said he believed that over 90% of the chorea cases develop heart lesions and that if we followed chorea cases for a period of 3-8 years we would find that at least 90% would have a rheumatic infection of the heart. I would like to ask Dr. Minard what proportion in his group turned out to have a rheumatic infection of the heart, and how long before the process developed?

Dr. D. J. M. Miller (Atlantic City): I want to emphasize the importance of rest in the treatment of chorea. In all mild cases, if you put the patients to bed and keep them there they will get well without any drug treatment. Of course, in severe cases certain sedatives are necessary. It seems to me that rest is the important treatment in chorea. I believe it should also be accompanied by warm baths. In mild cases it is unnecessary to drug a patient, particularly with such drugs as salicylates, which have a tendency to upset the stomach.

Dr. S. A. Levinsohn (Paterson): I know it is very difficult to present the subject of chorea because in spite of all the papers read and investigations made we know very little more about this disease now than we knew 15 years ago. At that time, rest, Fowler's solution and the salicylates were recommended, and that is all we can do today. In spite of the fact that it has been said that mild cases of chorea do get well when put to bed, we are still troubled with the severe stubborn cases where we have also to manage the family as well as the patient.

Now, while I believe anything should be pretty well proved before it is adopted, yet in a condition like chorea, where we have so little to offer, every new thing deserves a trial. The only new thing in the treatment of chorea that I have seen in recent years is a preparation that belongs to the sedative group and which seemed to have a more or less specific effect. It was found some years ago that cases of chorea suffering from a rash would improve when the rash faded. Also it was found that nirvanol which was used as a sedative, was quite toxic in its effect and when given in toxic doses produced a rash. This drug was then tried out in the treatment of chorea to produce a rash to see whether the toxic reaction would not clear up the chorea. This is analogous to the administration of other toxic products to clear up various minor conditions. This drug was tried out rather extensively in Europe and also in this country. It was also tried out by Schick at Mt. Sinai, where at one time 6-8 cases were under treatment, and an equal number were used as controls, and the drug did seem to have a distinctly favorable effect. The men who were using nir-

vanol were much impressed with it but whether it was only a personal impression or not I do not know. It has not appeared much in the literature and has not been used to any extent lately in this country. It is given in doses of 0.1 gm. for a period of 10-12 days or until the rash is produced. When the rash appears treatment is stopped; with disappearance of the rash the chorea symptoms are said to disappear. It is very hard to evaluate a treatment for this disease, because many cases will get well anyhow.

Dr. Stanley H. Nichols (Long Branch): There is something new which has only been worked on for about a year and a half. Dr. Small, of Philadelphia, has an anti-serum developed from the *Streptococcus arthritidis*. The case reports of this group are very astonishing because within a few days the acute symptoms often subside.

The important thing to remember about this whole subject is that we must look on chorea, rheumatic carditis, rheumatic fever, or any of the other manifestations, as part of a constitutional systemic disease which will last from 5-30 years. We must be very careful to follow it for at least 5 years. We do not regard any case of rheumatic infection as cured until it has gone 5 years without any symptom whatever of a rheumatic nature. We should look upon it as we do upon tuberculosis, that we are dealing with a disease that can be arrested. Whether it can be cured or not, is a grave question. We should speak of arresting choreic infection.

Dr. Charles I. Silk (Perth Amboy): I think one phase of this subject has been overlooked: that many of these children, if kept at rest during convalescence, would be prevented from developing some of the worst forms of chorea. Only last week I had a case in the clinic with an acute cardiac condition. This school child was going to school at the time and taking the various exercises. If these children were kept at rest during the convalescent period it would save them from the worst forms of the disease.

Dr. E. L. Minard (East Orange): When I selected the topic of chorea for my paper I did so not because of what I knew about it but because I hoped some one else might say something that would help all of us. I have been rather pleased with the results of the discussion and I think it has been worth while at this time to bring out this discussion.

Regarding Dr. Shirref's suggestion of treatment with the ultraviolet rays, Dr. Nichols has answered that question already; the effect would be to improve nutrition of the child, possibly to improve the blood condition. While I have not had time to find out what the results would really be from the use of ultraviolet rays, they have seemed to be quite good.

Regarding the restriction of meat from the diet, I suppose all of us who have been practicing more than 10 years remember the directions we had years ago to cut meat out of all rheumatic diets. My reason for giving meat and other foods suggested there was to build up the health of the child and was measured by his ability to take care of it. Often the child's digestive organs are upset and he is unable to handle such things as require greater effort in digestion. I think we might give some substitute and as I did mention a concentrated diet, some of the meat preparations might be used in concentrated form.

As to the question of vitamins, many of these patients have had a deficiency in diet previously.

Their vitality is lowered from an inefficient diet and undoubtedly the vitamins would help.

We know that rest after infection goes a long way toward setting up a resistance to subsequent disease, so that in treating infection of any sort rest would be a very important factor.

I think it is admitted that this condition is an encephalitis. The bacteria are supposed to have been found in the cortex. We expect to find a heart lesion in every case of chorea. Sometimes the condition is so insidious that we do not find it until it has become far advanced. I have never seen an autopsy done on a chorea patient, but I understand that at an autopsy all sorts of growths on the valves of the heart are found. Most of these patients develop cardiac disease. I think that we find more heart lesions in chorea than in the ordinary rheumatic condition.

I have not had any experience with the use of anti-serum.

As to the salicylates, the stomach can be upset with an overdose, of course. I try to keep the patients under control, more or less in the same way that we do the rheumatic patients. The salicylates seem to have a rather specific action in many cases of rheumatism, of course not in all.

CELIAC DISEASE AND ITS TREATMENT*

KENNETH BLANCHARD, M.D.,

East Orange, N. J.

While associated with Dr. C. G. Kerley, I was very much impressed with the number of cases of celiac disease that came into his office, the similarity of the clinical picture in each case, and the rapid improvement that was obtained in the majority of such patients. With Dr. Kerley's kind permission, I will describe a little later a few of the outstanding cases that I had the privilege of following with him over a period of several months.

The St. Bartholomew's Hospital Report for 1888, contained Gee's original description of a disease which has since been established as a definite clinical entity, and as you all know, a distinct type of gastro-intestinal disturbance. One of the chief characteristics of the condition is the nature of the stools, which Gee described as follows: "Signs of the disease are yielded by the feces being loose, not formed, but not watery; more bulky than the food taken in would seem to account for; pale in color as if devoid of bile; yeasty and

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frothy, an appearance probably due to fermentation; stinking, stench often very great, having undergone putrefaction."

The disease is of comparatively rare occurrence, and the symptoms usually become manifest between the ages of 9 months and 3 years. Etiology has never been very definitely determined, although the diet undoubtedly plays a part in the development. Kerley states that many of his cases gave a history of difficult feeding, which as a rule meant cow's milk incapacity. Morse states that there is a disturbance of the equilibrium between the digestive powers and the work to be done in digestion. That is, the power of digestion may be decreased by the disease or overfatigue; while the increased work to be done in digestion, may be due to too much food, food difficult for the child to digest, or improper methods of feeding.

Chronic tonsillitis, or disease of the accessory sinuses may, of course, be the cause of an upset digestive capacity. Mariott and his associates have in recent years emphasized the part that the sinuses might play with a child's digestion. Pyelitis is not an infrequent cause, in the female with celiac disease. Chronic intestinal indigestion may manifest itself following a variety of general infections, but none of these are regarded as specific causes.

The outstanding symptoms are atrophy of all the muscles of the body; that is, retarded development, with considerable loss of weight. The muscles are very flabby, small and weak. There is considerable pallor and the red cells in many cases are as low as 2,000,000. Development of the long bones is considerably retarded, and radiography shows delayed formation of the normal centers of ossification at the epiphyses. Abdominal distention is very marked.

An outstanding feature is the mental depression that the patient manifests. The child may not smile for months at a time, and has a good reason for being unhappy. Mental development is not, as a rule, retarded but these children are fretful and irritable. The nature of the stool is characteristic, and is in itself diagnostic; usually very large, light colored and extremely foul smelling; range from

2 to 4 daily, but there may be periods of marked diarrhea and at other times a period of constipation. Chemical analysis of the stools shows the presence of fatty acids; 25 to 75% of the solid matter consisting of fatty acids, soaps and neutral fats. Fats are, therefore, poorly absorbed in the digestive tract. The stools contain considerable mineral matter, chiefly calcium and phosphorous, and Herter suggests that this fact alone is sufficient to account for the delayed bone development.

The course of the disease usually extends over a period of years, and is marked by frequent periods of improvement followed by relapses. A child even at the age of 12 to 15 years may still be unable to eat as do other children. Many of these children are unable to take milk in any form.

In the treatment of these cases there is no medication of any value. Diet is the important factor, and deserves considerable thought and attention. In the first place cow's milk, no matter what form, should be eliminated. This is the first and most important step. Kerley puts his celiacs on a diet consisting largely of protein, and eliminates cow's milk and green vegetables, as well as raw fruits with the exception of ripe bananas, which Haas introduced in the treatment of this condition some years ago. The diet consists of the yoke of 1 or 2 hard boiled eggs with bread crumbs daily; scraped steak, minced chicken or minced chop. Rice or hominy cooked 4 hours is often given in place of vegetables; and the dessert may consist of ripe bananas, cream cheese, honey on crackers, or gelatine of either orange, lemon or vanilla flavor. Breakfast and supper consist chiefly of cereal, preferably made from whole wheat. The fluid which Kerley uses in place of milk, and which is entirely his own idea, is prepared by the Walker-Gordon Laboratories in New York, and consists of casein, barley and lactose, usually in the ratio of 5% of each, although this may be varied according to the regularity of the patient's bowels. The casein is furnished by the Dry Milk Co., at Park Row, New York City. Starch is given in the form of barley, and the lactose is added for the food value, as well as to make the food more palatable. This solution is given in place of

milk, and is used on the cereal, in making puddings, and also for drinking purposes. The average celiac takes about a quart of the mixture each day, delivered fresh daily from the laboratories. If the patient's means are limited, it can be made just as well at home after a little practice. To each quart of this synthetic milk is added 20 gr. calcium chloride, to aid in the replacement of lime to the depleted bones. After the stools improve in consistency and odor, and become less frequent, green vegetables are gradually added. The casein milk not only contains nitrogen and calcium, but also soluble and insoluble carbohydrates, and therefore furnishes a food of considerable nutritional value; and the results seem to be better than those obtained with protein milk, skimmed milk or various forms of dried milk. When fresh milk is eliminated from the diet, the stools cease to cause trouble, as a rule, although a temporary diarrhea or a period of constipation is not unexpected. Because of the marked abdominal enlargement and distention, and sagging of the intestinal tract that goes with this condition, a Bassler belt, or a modification thereof should be worn except during very warm weather. This, however, is of no value in the very young patient that has not reached the walking stage.

I will now describe briefly a few of the more interesting cases of celiac disease that I had the privilege of following at Dr. Kerley's office, and to whom all credit is due for the excellent results obtained.

Case 1. J. M., aged 23 months when first seen, and at that time weighed 15 lb. 11 oz. His best weight was 17½ lb., one year previous to his first visit. He was brought to the office because of irregular bowels, poor appetite, loss of weight with failure to gain. The birth history was normal. Birth weight was 8¼ lb. Physical examination showed marked nutritional disturbance; considerable underweight with very flabby muscles; abdomen distended. He was first placed on evaporated milk, but in 2 weeks time he lost another 7 oz. Was then given the diet that I have described. The synthetic milk consisted of casein 4%, barley 5%, lactose 3% and granulated sugar 2%, the latter being added be-

cause of the constipation. To this was added egg yolk with bread crumbs, scraped steak, minced chicken or minced chop and also rice or hominy, cereal in small amounts, ripe bananas, cream cheese or honey and gelatine. On this diet he gained 2 lb. 2 oz. in 1 week, and 3 weeks later had gained another 1 lb. 6 oz. The bowels became regular, appetite showed marked improvement, and the disposition was that of a different boy entirely. Since then he has gained nicely and when last seen, 6 months from the time of the first visit, weighed 25 lb. 14 oz. a gain of over 10 lb. during that period. This is a typical example of what the elimination of cow's milk from the diet, with the substitution of proper food will do for these patients. If cow's milk had been continued as a part of the patient's diet, it would undoubtedly have proved fatal.

Case 2. B. F., female, 10 months of age, low forceps delivery at birth, when weight was 8 lb. 9 oz. The weight at 11½ months was 10 lb. and 2 oz. Chief complaint was poor appetite, loose stools, very foul in odor, restlessness and irritability. The bowels were loose for the 6 weeks previous to that time, with 3 to 5 stools daily. She was placed on a celiac diet much the same as that given the last patient and in 6 weeks gained 7 lb. and 6 oz.

Case 3. E. M., aged 2 years and 4 months. Full term, normal delivery, with a birth weight of 8 lb., 3 oz. The weight when first seen was 24 lb. 15 oz. The mother complained that the baby had been losing weight for 6 months; appetite was poor, bowels irregular and the disposition very poor. Stool examination at time of the first visit showed moderate carbohydrate fermentation and a slight amount of unchanged starch with a predominating Gram-negative flora. The celiac diet was followed out carefully and in 2½ months the patient gained 2½ lb.

Case 4. C. H., 23 months old. Full term, normal labor with a birth weight of 7 lb. When first seen the baby had a very poor appetite, loose stools and failed to gain. At 23 months she weighed only 16 lb., 14 oz. Showed marked abdominal distention, and vomited cow's milk frequently. Even while on the celiac diet the baby failed to gain for

6 months. She then started to eat better and put on weight very rapidly; is still on a celiac diet.

From these few cases it is evident that the elimination of cow's milk from the diet of the celiac, with substitution of a well balanced protein diet and synthetic milk, will help many a case that might appear hopeless. It is well to bear in mind in giving the parent's the prognosis, that many of these cases do not gain when they are first placed on the diet described. In fact, many of them may even lose ground for a few weeks, before they start to pick up. If the parent's are warned to expect this, it is often a help to their morale.

DISCUSSION

Dr. E. G. Wherry (Newark): It is needless to say that I join with the rest of the audience in saying how very much we enjoyed this paper. Celiac disease is a comparatively rare condition. I have seen only 6 or 8 cases of typical celiac disease. While showing no evidence of chronic intestinal or organic abdominal disease, they all display marked inability to absorb fat. The symptoms are as Dr. Blanchard has described them. The most prominent being the very large, foul smelling stools. Unless one is familiar with these cases it is impossible to visualize those stools. It is not an infrequent thing for a small child 8-10 months old to fill 2 or 3 small vessels at one time. The stools contain an excess of split fat and sometimes even more than Dr. Blanchard spoke of in his paper, sometimes as high as 80%.

There is a large abdomen, lack of growth and, as these pictures so beautifully showed, the lack of buttocks on most of these children. The most characteristic picture on superficial examination is the sad facial expression. As Dr. Blanchard said, they never laugh or smile. They are resigned, sad little philosophers and accept everything as it comes, do not make any great fuss about anything, but certainly do not enjoy life.

There is a tendency in all these cases to recover after a period of years without any special diet. It is not a very fatal disease. Recovery does not depend altogether upon diet, but there is no doubt that proper diet makes the child very much more comfortable, does alleviate the symptoms, and hastens cure.

Dr. Blanchard spoke about the use of milk being absolutely taboo. I have 1 patient 9 months of age who after being weaned did poorly on everything until we got mother's milk, not the milk of any one particular but any mother's milk, and the child got along beautifully on that. Milk is digested by some of these children as well as anything else, so we cannot condemn milk for all and cannot generalize, though it is very true that many of them cannot digest milk.

These cases should not be confused with the catarrhal diarrheas nor with the stools found in rickets or with tuberculous peritonitis or chronic enteritis, or with the form of enteritis or colitis that we sometimes see in chronic boracic acid poisoning. It is surprising how many cases we will find in very young children where boracic

acid has been used to wash the mouth or the mother's nipples or breast and has caused a poisoning of the child.

I feel that very often protein milk can be digested when ordinary cow's milk cannot. Then, milk in the form of cheese is sometimes very well taken care of. Of course, we know about bananas. Some children will not tolerate them. In fact, some of these children are very difficult to feed because they are rather finicky. Others have tremendous appetites and will eat anything you give them. One of the best forms of cereal is grape-nuts. The diet I usually employ is the protein milk, cheese, bananas, grape-nuts, green vegetables, liver, different kinds of meat, eggs, rice and karo syrup.

There are no drugs, I presume, that are specific for this condition, but nevertheless very good results seem to have been obtained with the use of salicylates, calcium and glandular therapy of various kinds. One thing that has helped very much is ordinary bone charcoal; that can be mixed with karo syrup and makes a black, messy-like material very much like caviar, yet it has a very beneficial effect. Occasionally doses of salol will help. I find that the ultraviolet light apparently stimulates these children, increases their powers of resistance, and is of decided value.

Dr. D. R. Crounse (Passaic): Dr. Blanchard has brought us a very interesting subject and some of us who have followed these cases for years know the progress that pediatrics has made in the treatment of intestinal disturbances. Fifteen or more years ago we knew very little about the protein diets and all of these patients were fed in a heterogenous way so, of course, milk was our main basic food. I agree with Dr. Wherry that most of these patients get well eventually. Of course, they are tremendously retarded in their development.

Dr. Blanchard brought up in his etiology 1 or 2 points on which I would like a little more information. He spoke of sinusitis and pyelitis as possible etiologic factors. I think these children start in around 10 or 12 months of age. Undoubtedly the cases that Dr. Kerley had charge of had a prolonged history, starting with the first year of age. We must not forget that they had perhaps been tried out on all sorts of diet before they came to him as a last resort and that, therefore, their history is very much prolonged. If pyelitis is an etiologic factor it must be very unusual because we see many cases of pyelitis not associated with any intestinal disturbance, and the work on pyelitis would tend to prove that it is a congenital defect. Now the sinuses are not developed to any extent at that early time of life and I fail to see how that can bear on this question. The doctor did not mention whether any such etiologic factor was found or whether any treatment was directed toward sinusitis in any case that he has followed.

Protein milk has been the diet I have used during the last few years. Powdered milk is very valuable. Casein is a little better for older children. Many of the older children are very averse to taking a sour milk but I have had very good results with protein milk.

I agree that the violet ray seems to help these children a great deal; stimulates their retention of calcium and phosphorus in the blood and bone.

We must not forget that this sensitiveness to cow's milk persists for years. I have followed 1 case for about 10 years. When this child's teeth began to come in there was a defective enamel and the dentist said the child's diet was all wrong, that it must have a lot of fat. The mother was

very much upset, thinking the fats should not have been cut out of the diet and she had already started on the advice of the dentist to give the child a considerable amount of milk. The child began to pick up but the intestine was enlarging, the child was getting frightfully peevish, and there was a retardation of growth. I would like to ask whether others have seen this same lack of development of the second teeth, which of course dates from early infancy? I have been using the ultraviolet ray and have found it of value.

Dr. D. J. M. Miller (Atlantic City): I think this disease is an instance of a misnomer, as in so many medical terms. It is from the Greek word *coli*, meaning abdomen; a condition in the abdomen. The essential feature of the disease is an intolerance to carbohydrates. As to the nature of the disease, I don't think there has been any adequate explanation. Dr. Crounse took exception to the influence of pyelitis and focal infections, and that point is, I think, well taken, because we know nothing about its origin. Very often the child has been nursed and then placed on cow's milk, and finally develops this characteristic syndrome. The usual history of these cases is that they go through a long period of attempts to adapt various foods to the child.

One of the symptoms that the speaker did not emphasize sufficiently is the very greatly distended abdomen. The picture of the emaciated chest muscles, the thin, spindle-like legs and the enormous belly, combined with the characteristic stools, is quite sufficient to make the diagnosis of this disease.

As to treatment, with the idea in view that it is a carbohydrate intolerance, these children improve under a strict protein diet. Many get well. It is important to treat them and get them well because the condition often leaves a profound impression on the child's system that continues throughout life. Many really never recover but remain infantile. Hence Herter called it intestinal infantilism. It is a curious thing, but frequently, notwithstanding carbohydrate intolerance, many of these children are able to take one form of carbohydrates, viz., karo syrup. I have had 3 or 4 cases under my care in the last few years and I have usually put them upon protein milk or fat-free acid milk, because stools usually have an excess of fat; they improve wonderfully with this treatment. The stools improve, they put on weight and gradually get well, but they have the enlarged abdomen for a long time afterward. We should remember that this is a long drawn out treatment and requires an immense amount of patience and persistence on the part of the doctor as well as the patient. They constantly have recurrences and relapses, and one must often begin all over again, even if the physician follows out the diet generally accepted as the best.

Dr. Stanley H. Nichols (Long Branch): In Dr. Blanchard's analysis of his cases I would like to know what he thinks precipitates celiac disease? This is a rather mysterious disease and brings up several questions which no one as yet has been able to answer. If caused by cow's milk alone, why do the children that are bottle fed go along 6-12 months before this syndrome is precipitated? Why does it not come on earlier. To what is it due? For some years, until Dr. Kerley started to eliminate cow's milk as such, we have had this grand old battle of the baked potato versus the banana. I think some little infection very often precipitates the condition. We know that fat and carbohydrate are badly digested in these cases and there is still a difference of opinion among pediat-

ricians of this country as to which is the main offender, the fat or the carbohydrate. These patients tolerate some carbohydrates and Dr. Kerley's latest method of giving casein, means cow's milk casein of course. In that, he has absolutely eliminated the fat and that is the only way you can get fat-free milk that I know of. Fat-free buttermilk is not fat-free at all. That is equally true of many protein milks and Dr. Kerley's method of putting together a synthetic milk does eliminate the fat, and this we should all remember.

Dr. Haas believes that the vitamins play quite a part. He calls particular attention to what Dr. Blanchard has already spoken of, the malnutrition of the lower extremities as opposed to the upper. Then he pushes vitamins and feels that you can gauge to some degree the progress and improvement by return of power to the legs.

The ultraviolet rays unquestionably improve the appetite in some cases. Dr. Haas feels that he can cure 100%, and so do some others, but some have relapsing stages and occasionally we have a patient, as I did several years ago, that dies of recurring infection. No one has suggested today that these patients do so die of the disease. They do. I would like to see a list of the cases where death occurred and know what was the cause of death. It would be enlightening.

Dr. R. A. Shirrecks (Elizabeth): I would like Dr. Blanchard to tell us how many of those babies under his observation got a good running start in life by being breast fed for a certain time, and how many were artificially fed?

Regarding the use of the abdominal belt, does Dr. Blanchard require that as a curative agent or only as a support?

Dr. Kenneth Blanchard (East Orange): I thank you very much for the discussion of the paper. I think the following points brought out by Dr. Wherry are very valuable: the fact that the stool is diagnostic, the lack of buttocks, and the sad expression that the child has for a good many months.

Of course, the question of cow's milk in the diet is the big question. Some of you claim good results with cow's milk but from what I have seen with Dr. Kerley I think the casein preparation seems to give the best results. Many of these patients have been to 6 or 8 other doctors, and I think if you do not get a result that is somewhat spectacular, and have a gain in weight fairly soon, they will keep on going to the next man.

The ultraviolet light is very valuable. We still use it a good deal, giving it 2 or 3 times a week.

The question brought up about sinusitis, I refer to the work that Marriott has been doing, and his writings on the subject. I believe they are finding a great deal of sinus trouble in St. Louis.

I have no data as to whether or not pyelitis is a direct cause of celiac disease. I do not think it has much connection except that a few do have pyelitis. This may be only a coincidence.

Dr. Miller brought out the difficult question as to the exact nature of the disease. The exact cause of it seems to be more or less of a mystery. Many of these children do well on cow's milk or breast milk until they reach the age of 8-10 months, and then they go down rather rapidly. We radiographed a good many cases of celiac disease, especially with barium enemas, and they all showed a greatly elongated large intestine, many of them a dilated colon and an enlargement of the sigmoid, which helps to explain the large abdomen. The question as to what precipitates the disease

is unsettled. Feeding a susceptible child cow's milk might produce celiac disease. There is a good deal of research work to be done in this respect.

Regarding the reference to bananas, some of these children got 6 to 8 bananas a day.

I think the abdominal belt, judging from x-ray pictures, is valuable in keeping the intestinal tract up, relieving the ptosis, and taking some of the kinks out of the intestine.

BUTTERMILK IN INFANT FEEDING*

SANDOR A. LEVINSOHN, M.D.,

Associate Pediatrician, Barnert Memorial Hospital,
Paterson, N. J.

Acidulated foods were given to infants and their advantages over sweet milk were discussed by pediatricians long before the inspired utterance by Metchnikoff awakened the interest of the laity to the remarkable effectiveness of fermented milk as an article of diet. Sour milks had been used since 1770, by various clinicians, with excellent results. Others, however, first withdrew their objections to this food when their attention was redirected by deJager, Salge, and Teixeira de Mattos to the favorable nutritional results achieved with buttermilk. The latter has since then been used extensively in Holland for feeding infants with delicate digestive apparatus, and is in common use at present in central Europe.

I was astonished several years ago to note how frequently buttermilk is prescribed in large institutions and hospitals for children in Berlin and Vienna. Finkelstein considers it one of the most important foods prepared in the diet kitchen of his hospital. L. F. Mayer, at the Orphan Asylum, was using buttermilk, prepared as a buttermilk-butter-flour mixture, as a routine food for all healthy infants in his institution. In this country, however, buttermilk does not appear to have gained the popularity it deserves. This paper is a plea for a more common knowledge and more widespread utilization of this food, which, if properly

employed, is one of the most useful additions to the pediatrician's armamentarium.

Buttermilk, undiluted, constitutes a food which is frequently superior to sweet milk mixtures. It is distinguished by its acid reaction, the fine division of its casein, its low fat and low lactose content; the latter being reduced from 1% to 1.5% as the result of lactic acid fermentation. If correctly used, and with suitable additions, buttermilk is a food on which a hitherto unreached percentage of infants may thrive satisfactorily. With proper modification, it also meets the requirements of a permanent food.

Buttermilk is ordinarily understood to be the by-product obtained by churning butter. Fresh buttermilk, suitable for infant feeding, is best prepared in this way: its composition varies somewhat but average figures would be 2.5% to 2.7% protein; 0.5% to 1% fat; and 3% to 3.5% lactose; it should not appear curdled; degree of acidity should correspond to about 0.5% lactic acid; and it should have a pleasant taste and odor. Unfortunately, such buttermilk is not readily obtainable.

During the various stages of butter manufacture, the buttermilk is frequently exposed to contamination. It is often adulterated with water. Far more deplorable is the practice which obtains, especially in small dairies, of pouring skimmed milk, centrifuged milk, and other by-products into the buttermilk container and selling them all together as buttermilk, which is still too often regarded as a refuse product fit mainly for feeding swine, and not for humans. It must also be considered, that many small dairies do not churn butter daily, but use cream which is several days old. Such a product is rich in bacterial and other contaminations; is altered in taste, reaction and type of curd; and is not fit for infant feeding. A suitable buttermilk is, therefore, obtainable for the most part only from large dairies. Even the latter, however, have so little interest in the question of infant feeding that the difficulties are often insurmountable.

Some hospitals prepare the buttermilk themselves, or use acidulated skimmed milk in which the acidity is introduced by means of commercial "starters" in solid or liquid form,

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or by inoculation with sour milk of the previous day's churning. Acidulated skimmed milk and buttermilk, however, are not identical either in composition or in effectiveness, as will be noted later.

During the past few years I have obtained buttermilk for my patients either by ordering it from the Walker-Gordon Laboratories (which is an expensive procedure and rather inconvenient) or have made use of a dried preparation marketed by Merrell-Soule under the name of "akrelac". The latter is supposed to be used as buttermilk (after adding the correct amount of water), but its composition is not exactly the same as fresh buttermilk; the main difference being a higher lactose content (5.2% for akrelac as compared to 3.5% for buttermilk). On the whole, however, it has proved to be a very satisfactory product for temporary use, but I understand that the demand for buttermilk has been so slight that the manufacture of akrelac has been discontinued and the stocks on hand are being gradually distributed. I hope that there may be sufficient interest revived to stimulate the production and make available a ready supply of fresh buttermilk suitable for infant feeding.

Buttermilk has the tendency to form large curds, when warmed. This may be avoided and the fine division of the casein retained by using a special method for heating the buttermilk when it is sterilized. A small amount of flour, one-half teaspoonful, is added, and the food is heated slowly for 8-10 minutes over a low flame. It must be stirred vigorously during the entire time and permitted to "well-up" 3 times. The flour may be omitted if the buttermilk is heated even more slowly so that 25 to 30 minutes are required to reach the boiling point; this is occasionally desirable for young infants with dyspepsia.

According to the original directions of Teixeira de Mattos, 15 gm., of wheat flour and 50 to 80 gm. of beet sugar should be added to each liter of buttermilk. This is about 1.5% flour and 5 to 8% sugar. This large amount of easily decomposable sugar, together with the high whey content, may favor the occurrence of intestinal fermentation. The flour is also not always well tol-

erated in this amount by infants during the first 2 months of life. It is, therefore, better to proceed carefully, and in general not to be tied down to any definite scheme, but rather to regard the buttermilk as a basic food to which various types and amounts of additions may be made according to needs of the individual case. If there is a tendency to diarrhea, the sugar is reduced, and more farina or corn starch used instead. Maltose-dextrin preparations may also be substituted for cane sugar in such conditions. The addition of fat, such as cream or butter, balances the food and lessens the tendency to unstable water retention in the child (hydropathy). Finkelstein has long used a mixture of 900 c.c. buttermilk, 100 c.c. cream and 25 gm. each of dextrimaltose and cane sugar, or 5 to 15 gm. flour and 30 to 60 gm. beet sugar. Butter-flour-buttermilk can also be used. This is prepared by adding a sugar and flour "einbrenn", or brown sauce, to undiluted buttermilk in suitable amounts.

The stools of infants being fed on buttermilk have a peculiar shiny, salve-like appearance. They are thick and pasty and are not more frequent than 3-4 per day. As long as the stools have this appearance there is scarcely any danger. A change in character of the stools, however, is a warning signal. The infant's temperature should also be watched, as the latter is often increased at midday in unstable children being fed on buttermilk ("buttermilk fever").

Reasons for the good results obtained with buttermilk are not entirely clear. The good gains in weight which are usually achieved may be explained as the result of simultaneous administration of large amounts of protein, carbohydrates, and undiluted whey. In view of the abundance of fermentative constituents, the relative infrequency of dyspeptic conditions with this food may perhaps be ascribed to the antagonistic effect of its high protein content. From this point of view its effect is comparable to skimmed milk enriched with carbohydrate. As a matter of fact, the latter often gives results which are in some respects as good as the former, and both these foods may therefore be considered as physiologically nutritionally equivalent. Finkel-

stein is convinced, however, from exact observations of sensitive clinical material such as premature and new-born infants, that buttermilks is superior to skimmed milk. Marfan is of the same opinion. Infants fed on buttermilk more nearly resemble breast fed infants than do those fed on skimmed milk. According to Finkelstein, buttermilk also seems to exert a stronger and more certain curative effect on sick patients.

Other factors in the good results from buttermilk may be the fine division of casein, just as with protein milk, and also reduction of the easily fermentable lactose. The acidity itself is also an advantage. The lower buffer value of the milk diminishes its combining power with hydrochloric acid and places a lighter burden on the secretory functions of the stomach. Digestion and emptying of the intestines may then proceed normally even if a hypo-acidity exists. The acid milk also has an inhibitory effect on the growth of bacteria, and this may be of some importance in diminishing the bacterial content of the intestines. Further, Klotz concludes from metabolic experiments that administration of optimal amounts of lactic acid improves absorption and retention, especially of minerals. Finally, the advantage over sweet milk may lie in other changes which occur in the milk outside the body, during the process of acidulation. The calcium-caseinate of sweet milk is coagulated in the stomach, and during the digestion the calcium is dissolved and the casein combines with hydrochloric acid. The casein of buttermilk, on the other hand, is already precipitated by lactic acid and the calcium is free. Furthermore, in sweet milk, the mineral constituents are mostly organically combined, whereas in buttermilk the mineral matter is for the most part in inorganic form.

Buttermilk is, therefore, a very valuable food for infants. Its uses are many and varied, and only a few examples may here be cited to illustrate the conditions in which it is helpful.

Buttermilk is an ideal food for premature infants when a sufficient supply of breast milk is not available. In fact, it is often better to feed prematures a mixture of 2 parts

breast milk and 1 part buttermilk, rather than breast milk alone. The protein requirements of premature infants are quite high, and frequently breast milk alone does not supply sufficient protein to permit them to gain in weight satisfactorily. Every one is familiar with the premature infant who fails to gain at a normal rate for some weeks after birth in spite of sufficient amounts of breast milk and apparent good health. This type of infant will often start to gain quite rapidly if some buttermilk is added to the breast milk. Where no breast milk at all is available, buttermilk, enriched with 5% dextrimaltose, is an excellent food for the first few weeks. Of course, it should not be fed exclusively for too long a period because of the danger of avitaminosis.

Another condition frequently encountered, is the young breast-fed infant who has green stools containing mucus and curds, and who is suffering from colic. The addition of a small amount of cow's milk protein, best given in the form of plain buttermilk just before or after each nursing, often has a remarkably beneficial effect on the appearance of the stools and on the well-being of the infant. As the baby grows older and its digestive apparatus develops to the point where it can better handle the breast milk, the complementary buttermilk may be discontinued.

Davenière considers infantile strophulus and eczema as toxidermias of gastro-intestinal origin. He regards prophylaxis and local treatment as of secondary importance, and recommends, primarily, treatment of the dyspepsia and intestinal fermentation. Buttermilk is excellent for this purpose. It is easy to digest because of its low fat content and fine division of its casein, and has an antiseptic effect due to its acidity. Whatever the reason may be, the fact remains that many children with strophulus and eczema improve on buttermilk.

Infants with habitual vomiting often do well on buttermilk because of its low fat and lactose content. As a temporary food, to control vomiting, it is very useful in such cases when given as a buttermilk mixture, containing 1.5% flour and 5% dextrimaltose or cane sugar.

One of the most important uses of buttermilk is in the treatment of acute diarrheal disturbances. Mild cases of this type generally occur in infants who have previously been in good health, and are usually associated with only a moderate loss of weight which stops during the initial period in which food is withdrawn. Such cases may be started at once on one of the usual therapeutic foods which include breast milk, protein milk, lactic acid milk, or calcium-caseinate milk. The composition of most of these foods, however, is such that they do not favor the retention of water within the body. This is particularly important in diarrheal disturbances where dehydration has taken place. Breast milk is especially lacking in this respect because of its low salt and high fat content. This objection applies also to protein milk though to a lesser degree. It is, therefore, better even in mild cases, to follow Finkelstein's scheme which has proved so useful in severe cases in which there is a great loss of water and an accompanying toxicosis (alimentary intoxication). In such cases the period of weight stabilization must be established as quickly as possible. This may be accomplished with the greatest speed and certainty by administering foods which have a marked water-retaining effect, and buttermilk is one of the best foods for this purpose.

After the initial period, during which food is withdrawn completely and only dilute tea or Ringer's solution permitted, feeding is begun with plain buttermilk. Within the first 12 hours 30 to 40 c.c. are given. During the next 12 hours, 50 to 60 c.c. per kilogram bodyweight is permitted and this is increased gradually so that 100 c.c. per kilo. bodyweight is being fed no later than the third day. The therapeutic food, such as protein milk, is now added step by step, a total of 50 to 100 c.c. the first day, and then gradually increased until the buttermilk and the protein milk together total 200 c.c. per kilo bodyweight. This satisfies the caloric needs of the child. The buttermilk is now slowly withdrawn and is replaced by like amounts of protein milk. By following this procedure, the initial loss of weight, which usually continues when pro-

tein milk is started from the beginning, may generally be avoided or reduced.

SUMMARY

(1) Buttermilk obtained from sour cream has been used as an infant food for many years with good results.

(2) These good results are difficult to explain, but may be due to various factors. Among these are its low fat content, low lactose content, fine division of the casein, and low buffer value.

(3) Buttermilk is a useful food in a variety of conditions and deserves more widespread popularity than it has obtained in this country. Examples of its usefulness are in feeding premature infants, in breast fed babies with colic, in cases of infantile strophulus and eczema, in babies with habitual vomiting and in acute diarrheal disturbances.

DISCUSSION

Dr. Harry B. Silver (Newark): It has been a great pleasure to listen to Dr. Levinsohn's paper, especially on account of the interest in the last 5 or 6 years in acid milks. There is only one point I wish to discuss and that is that we have to be a little bit careful about introducing too many types of feeding to do the same thing. Buttermilk in this country is impossible to get under conditions that make it satisfactory for infant feeding. Churned buttermilk is almost impossible. A dried milk product has been withdrawn on account of lack of demand for it and that is explained by the fact that the buttermilk is doing the same thing that we are doing with the present popular acid milk. I gathered from the paper, that Finkelstein is using a milk with thick cream. I can hardly see how a buttermilk preparation of this type would give any better results than skimmed lactic acid milk. I feel that when we have a preparation that is easily available, that is sterile and clean, there is not very much advantage in starting to feed a preparation that is difficult to get and to maintain in a really satisfactory state.

Dr. F. C. Johnson (New Brunswick): I want to ask how they sterilize buttermilk, and what the effect of sterilization is; whether they sterilize it on the Continent, or whether they can use it raw? Also whether using it raw is not a great advantage? Whole milk properly acidified will answer all of the qualifications that Dr. Levinsohn claims for this buttermilk, and I am very much interested to know how he feels about this?

Dr. D. R. Crounse (Passaic): When this acrolak was first put on the market I was sent a considerable quantity for trial and was much pleased with it. However, last year I read a paper on lactic acid milk feeding and I have swung over entirely to the use of a lactic acid milk or lemon juice milk and find I get as good results with this as with the buttermilk that was originally put out. These milks are all subject to modification. One failure in using the sour milk is that we are

likely to become stabilized in our ideas. Dr. Marriott's original work would lead us to think that buttermilk could be of universal use, in all cases of digestive disturbance, particularly intestinal disturbances, but any type of milk can be modified to suit the individual case according to whatever the requirements may be. The success or failure of buttermilk will depend very often on that particular point.

In the case of infants who are vomiting, my experience has been that we do not get success with straight sour milks unless we thicken them with a flour mixture.

Regarding eczema, I have not seen any improvement where there is a sensitiveness to the protein of milk. The modifications of milk have not helped me there.

Dr. Joseph H. Marcus (Atlantic City): We frequently encounter marked abdominal distension accompanying severe respiratory infections which condition causes the patient much distress and the attending physician much concern. Buttermilk and other protein milks have been advocated and used with varying degrees of success in those cases which do not comprise the overwhelming toxic types. What is your experience in this phase of buttermilk therapy?

Protein milk has been a valuable adjunct in the treatment of eczema in infancy. I have always favored the powdered forms of protein milk and have had results that ranged from negligible to excellent. This type of therapy certainly should be included in the dietary treatment of all cases of infantile eczema.

Dr. E. G. Wherry (Newark): I believe Dr. Levinsohn said that buttermilk is not used as much in this country as it is in Europe. Conditions over here are quite different from those in Europe. This is the country where certified milk was first started. Our market milk is a very much better product than they have over there. Under the circumstances, where we have a good milk supply so that we can more or less duplicate mother's milk in infant feeding, we do not have the problems that confront them in Europe. For that reason we have not been forced to get substitutes for good cow's milk to the extent that they have. That may be one of the reasons why we do not use so much buttermilk here as they do in Europe. We do not have to!

Dr. S. A. Levinsohn (Paterson): Dr. Silver brought out the fact that we should not introduce too many types of milk for feeding, and I quite agree with him. As to the preparation of buttermilk with cream, I thought I had made it clear that was simply used as a routine food for normal babies and was not intended to be fed to babies with any intestinal disturbances. For institutional use, it is a good thing to adopt as a routine. Finkelstein and Meyer have evidently found that a buttermilk and butter-flour mixture is a safer food to give to a healthy child than is a sweet milk mixture. The gain in weight is excellent, the resistance against infection very good, and they feel that it is a good routine food for a healthy infant. It is not advocated for any particular type of digestive disturbance.

As to how buttermilk is sterilized, I thought I had explained that. Ordinarily buttermilk is not used raw. It probably would be an advantage to use it as such, but because of the difficulty of obtaining a buttermilk which is sufficiently clean to be used in this way, it is not practical. In sterilizing buttermilk, it is heated over a very low flame, after first adding a small amount of flour,

and stirred vigorously during the entire time that it is being heated. If buttermilk were obtainable pure and fresh and clean it could undoubtedly be used raw and this would be an advantage because in addition to the other factors we would have a viable lactic acid bacillus in the milk.

Several men stated that lactic acid milk serves the purpose of buttermilk and that the results with the former are as good as with the latter, but is that true? We know that a well baby will thrive on almost anything. You may use milk, water and sugar, or whole milk, or concentrated milk, or protein milk; in fact, any half way sensible formula will be suitable for the healthy child, but we are considering here the infants whose digestive apparatus is not strong enough to cope with the ordinary type of feeding. We know that premature infants are difficult to feed and are particularly unable to assimilate fats. The same thing applies to infants who are vomiting. It is just as easy to feed buttermilk, which is easier to digest, as it is to feed sweet skimmed milk.

As to the skin lesions, we do not know what strophulus and eczema are due to. Some say to a protein sensitization. We cannot eliminate the sensitization by diet. Nobody has had any brilliant results along these lines. Czerny believes they are due to a high fat content of the food. Finkelstein thinks that the salts are at fault and on this basis has developed his eczema soup. Every man tries out his own particular method of treating eczema and I assume that one man's results are as good as another's, but in view of the fact that there is some authority for believing that this diathesis is aggravated by a high fat content, and as buttermilk is low in fat, we often obtain good results with the latter.

Another thing to remember is that intestinal disturbances may be of 2 kinds. There are the fermentative and the putrefactive disturbances. Fat appears to be a sort of fulcrum between the two, ready to throw its weight toward the predominating factor. If fermentation predominates in the intestine, fat will increase it, and if there is putrefaction fat will also increase the latter. This was proved by Finkelstein many years ago and he therefore considers it necessary to eliminate the fat in either condition. The feeding of whole lactic acid milk will not give the same results as will a food from which the fat is absent or very much reduced.

Dr. Marcus asked about my results in cases of pneumonia with distension. Feeding in pneumonia is a very difficult problem because of the distension and because of lowered activity of the intestinal tract and the lack of appetite. I have had good results with concentrated protein milk or buttermilk, using the protein milk where there is diarrhea and buttermilk where the stools are good.

As to my own particular results in eczema, in spite of what I just said, I change the diet and try to reduce the fats because I have been told to do so by men who know more than I do about it, but my own opinion is that the local treatment is more important than the dietary. I have seldom seen a moderate case clear up on purely dietary treatment. I have seen many severe cases clear up on purely local treatment without changing the diet at all. If we are dealing with the obese torpid type of child, if we cut down the fat content of the food and decrease the rate of gain in weight, these conditions are favorably influenced, as a rule. If the eczema occurs in a poorly nourished child we must build up the child's weight and physical condition.

Dr. Wherry is correct in saying that we do not have the same infant feeding problems in this

country as they do in Europe. I have seldom seen a true case of alimentary intoxication in this country. The old type of "summer complaint" has been practically eliminated because our milk supply is so much better controlled. But where you do get these cases they are very serious. The most serious factor is the dehydration that takes place and if it is not checked quickly and the water retention in the body restored and weight stabilization established, these children may go under before the food has had a chance to have any effect. I think buttermilk in the treatment of these disturbances, is of real value, and fills a need which is not met by any of the other foods.

THE OXYGEN TENT IN PNEUMONIA*

CHESTER BROWN, M.D.,

Arlington, N. J.

Oxygen was discovered by Stephen Hales just 200 years ago, but Priestly demonstrated what it really was in 1774. Its importance in life is realized when we consider that it makes up 75% of animal bodies and that 21% of the earth's atmosphere at sea level is oxygen. The mechanism of man can function only a few moments without it. Normally, the blood leaves the lungs 95% saturated with oxygen. In its circulation it gives up about 25%, so that venous blood has about 70% saturation. When ability of the lungs to oxygenate the blood falls to 85%, cyanosis is just apparent; to 80% it is well marked; and below 80% there is a deep cyanosis reaching a grave degree of anoxemia at 70%—at which point irreparable tissue damage is beginning to take place.

Although oxygen can hardly be looked upon as a drug, it has a dosage. No appreciable therapeutic results take place until it reaches a concentration of 30% while 40% to 60% is the dose for most cases; although some experimental animals have been kept in 90% to 100% oxygen. Any concentration above 70% is dangerous, as an inflammatory process and a resultant pneumonia may be produced. Extension of the pneumonic area has not been noted to be more frequent in oxygen-treated patients.

The symptoms and physical signs of an-

oxemia are headache, nausea, vomiting, delirium, mental and physical depression, hemorrhages, increased and irregular respiration and pulse, poor heart sounds, cyanosis, fever, coma and death. Nature wisely provides a reserve functional capacity in all organs for times of added stress. This is particularly evident in the kidneys, but the lungs are no exception.

Pneumonia partially or completely prevents the affected areas from carrying out their function, with a resultant anoxemia. The different types of pneumonia vary in their interference with the lung oxygen function; complete consolidation will prevent any absorption of oxygen; in areas of edema and congestion, an increased concentration of oxygen will permit these areas to function to some extent at least.

At an early date the value of oxygen, in pathologic conditions causing anoxemia, was recognized. The difficulty was in its administration. The first method used was the deliverance of oxygen from a funnel just in front of the patient's nose and mouth. This seemed to be a reasonable way to administer it, but clinical results were disappointing. Use of oxygen long since fell into disfavor with the profession, but never lost its popularity with the laity. Actual tests of the air in the respiratory system of the funnel-treated patient showed that oxygen was increased only 1-2%, which is the answer to its apparent failure, as at least 30% is necessary for therapeutic effect.

Then, administration by nasal tube was tried. Under favorable conditions this gave a little higher percentage, 25-30%, just reaching therapeutic requirements, but fell into disfavor not merely because of low degree of success but because it was annoying to the patient. Haldane administered it by means of a mask in 1917. This method much improved the concentration of oxygen, but was very annoying to the patient, especially in hot weather. It was only practical in unconscious or semiconscious patients, and was unadaptable to the child or infant.

In 1921 the first successful administration of oxygen was accomplished by means of a "rebreathing" room or chamber. This is the

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deal plan, but initial cost, immovability and space required, made it inaccessible to the masses. These objections prompted construction of the first rebreathing oxygen tent. Barach, of New York; Roth, of Battle Creek; and Boothly, of Rochester, Minnesota; have all contributed to production of the Barach-Roth Oxygen Tent as we have known it for about 3 years.

The apparatus consists of a tent which nicely accommodates the head and chest; if an infant, the body. Windows are provided to make the patient less aware of his isolation and to permit inspection by the attendant. At one side is a flap through which the attendant can administer to the patient. Ventilation is accomplished by means of an electric motor driving a blower capable of driving from 30 to 150 liters of air per minute, depending upon the speed at which it is run. Two large metal containers are connected into the air circuit; one contains soda lime for absorption of CO_2 , and the other, ice or carbon dioxide snow to cool and dry the air. At a ventilation of 60 liters per minute the air coming from the cooling coil is about 48°F . and this keeps the temperature in the tent at about 65° with the relative humidity within normal range. There is a high-compression oxygen tank leading into the circuit providing for the deliverance of oxygen. The machine is a rebreathing apparatus; from the exhaust in the tent comes moist warm air laden with CO_2 which is drawn down the tubing into the soda lime where it is absorbed. The current then is admitted into a mixing chamber where oxygen is admitted in known amounts being controlled by a reducing valve reading in liters per minute, which valve is attached to a high-compression oxygen tank. From thence the mixture is driven up through the ice chamber into the breathing tent for the patient's consumption.

The apparatus when set for a given patient with oxygen gage registering and held at so many liters per minute, runs very steadily at a constant oxygen percentage. But to enable the operator to definitely determine the amount of oxygen in the tent, a gasometric apparatus is also connected into the circuit, and a sample of the circulating air may be

removed and tested for its oxygen content. A test may also be made to show the effectiveness of the soda lime. These tests, although of value, may be dispensed with when operating a tent for a limited period in a private house.

Experimental animals and patients have been kept in oxygen under increased tension for 2-3 months without apparent harm, so no difficulty is experienced in its administration through the course of a pneumonia. Clinical experience has shown the optimum to be 40%; between 40-60% is considered to be entirely safe. These percentages are obtained by a flow of 2-4 liters per minute; 3 liters will usually be found about the right amount for the child or infant, but always be a good clinician and regulate the apparatus to what the patient's needs seem to be.

There are several practical points of interest about the machine. Remember that oxygen is inflammable and do not allow anyone to approach the tent with fire or sparks. The tent flaps must be tucked tightly about the bedclothes to prevent escape of the oxygen mixture. Examination of the patient may be readily carried out by pushing the flaps up about the patient's neck. The soda lime tank holds 45 lb. of Wilson 4-8 mesh soda lime, which is usually sufficient for 3 days of continuous therapy. The ice chamber is filled with cracked ice and in the bottom of the tank there is a trap which allows drainage of the water without the escape of gas. When carbon dioxide snow is used, this drainage is not necessary. The cost of operating the tent is about \$8 per day. Institutions have to make a nominal charge. To rent one for home use costs about \$100 plus cost of operation per week. This may seem rather expensive but it is not as much as the cost of the average surgical operation, and it is combating a disease which is among the most deadly.

It is not practicable to put every pneumonia patient in a tent, although there is no physiologic reason why it should not be done. Therefore, certain indications are accepted as requiring the administration of oxygen; First, and most important, the appearance of a slight cyanosis which has been shown to be evident at a 10% anoxemia, restlessness, rise

of temperature, stupor, deep cyanosis, etc. When possible, deep cyanosis should be anticipated, for at this point, 15% anoxemia, actual damage is taking place in the tissues.

The investigators have used adult patients with few exceptions. I found reports on 1 or 2 children but no infants. Anoxemia, like other pathologic conditions, affects the child and infant in some ways differently from what it does in the adult. Therefore we have seen fit to present the subject today from the pediatric standpoint. Our first and cardinal indication, cyanosis, is not early recognized if we do not keep in mind that the child, and particularly the infant, has a physiologic anemia and that many infants are rachitic, which gives a secondary anemia. Cyanosis, under these conditions, manifests itself by a grayish pallor. Later a bluish hue appears but this does not indicate a 10% anoxemia, as in the adult, but a 15% anoxemia. Another difference is paresis of the bowel, which appears more frequently and earlier than in the adult. It is recognized by the well known distention of the abdomen. Here, may I quote one of our prominent pediatricians: "If, in pneumonia, I were only permitted to do one thing in the examination of my patient, I would elect to examine the abdomen." Distention appears at about the same time as the grayish pallor of beginning cyanosis and I give it as almost as important an indication for the administration of oxygen. It must be remembered here that children's abdomens are proportionally larger and that a distended abdomen is a physical sign of rickets, as well as some other chronic diseases. Restlessness is more evident in children than in adults and usually appears at about the same time as the last mentioned symptoms. It may be interpreted as air-hunger of which the adult frequently complains. Stupor may be mistaken for sleep, and the little patient gets into a coma before we realize it. The quality of the pulse in infancy is not easy to judge; percussion of the cardiac area, because of the rounded shape of the chest, is misleading, but the first heart sound under anoxemia becomes faint and indistinct and this should always be looked for.

What results may we look for? First, an

improvement in or disappearance of the cyanosis. "Keep the finger nails pink" is the rule, but with our small patients we must try to keep the entire body free from that grayish pallor. Second, the child ceases its restlessness and enjoys a quiet sleep. Might not this quiet state be due to relief of air-hunger, and possibly pain if pleurisy is a complication? The deep breathing necessary, when out of the tent, increases the pleuritic rub. I have never had the slightest trouble in keeping an infant or child quiet in the tent; on the contrary, it becomes restless only on being taken out. Third, a drop in temperature. The reverse of this happens in cases of extreme prostration with low or subnormal temperature. I presume this is due to relief of the anoxemia, allowing the thermal center to function. Fourth, the distention goes down and with that comes an improvement in the digestion; if this was the only improvement, it would be worthwhile. Fifth, the tired heart muscle shows improvement which can be noted by the improved heart sounds.

I have not found in the literature, nor has it been my experience, that the duration of the disease is influenced. It is merely an expedient to meet one of the pathologic conditions.

Relief is not obtained if there is insufficient lung surface functioning. Only a little comfort is obtained where there is an actual cardiac failure. And so it is where other irreparable damage is done. It is a therapeutic measure meeting only one of the many pathologic phases of pneumonia. Its administration in no way interferes with other therapeutics.

My experience is not conclusive, as I have only had the opportunity of applying it in a few cases, but I justify the reporting of results in that no one seems to have had more experience with infants and children.

DISCUSSION

Dr. D. R. Crounse (Passaic): I would like to ask the doctor about the relative value of carbon dioxide inhalation to stimulate the respiratory tract itself?

Dr. Frank W. Pinneo (Newark): This really hinges upon conditions of respiration and, as Dr. Brown has said, there is a difference in the cases. If the capability of the blood in the lung capillaries is not impaired and the oxygen that is carried to the red cells there can be used by them, a real service has been done. We have studied

resuscitation methods of artificial respiration in electric shock, drowning and gas poisoning, and it was found oxygen could only avail when the respiratory center could still respond to stimulation; it would not avail in cases where the center did not need the carbon dioxide stimulation. I would say, therefore, that the increase of oxygen in these cases would be of service but carbon dioxide depends upon whether the stimulation is needed or not.

Dr. E. G. Wherry (Newark): I would like to express my appreciation of this paper. It is unfortunate that a paper like this does not lend itself to criticism or discussion but it has been presented so fully and explained so simply and beautifully that the rest of us who have not studied the subject feel that it is impossible to add anything more.

Dr. Chester Brown (Arlington): I think that the fields of oxygen and carbon dioxide are somewhat different. Carbon dioxide, as I understand it, is being used and developed more by the anes-

thetists than by the internists; the CO₂ stimulates the respiratory center. It is used in the resuscitation of the new-born, where there is need for a stimulus and the carbon dioxide does give that. Now, with our pneumonia patient, we have a situation where the patient cannot, from lack of breathing surface in his lung, absorb enough oxygen, parts of the lung being completely or partially out of commission. If we can get an increased percentage of oxygen into that lung there is an increased absorption. It gives more for the lung to take up, so I think it is a rather different application. I have had no experience with carbon dioxide.

I have seen a few cases treated with diathermy and they seemed to do well. There again, is another field. Diathermy is directed to overcome the pathologic condition existing locally in that lung, as I understand it. Our problem in this paper, is to overcome the anoxemia and not interfere with the using of other measures. You can use anything and it will not interfere with the tent.

DEXTROCARDIA; REPORT OF CASE

H. R. LIVENGOOD, M.D.,
Elizabeth, New Jersey

Dextrocardia is of infrequent occurrence, and some of the features of the case to be de-

scribed appear most unusual. In 4000 autopsies at the Massachusetts General Hospital but 7 cases of congenital heart defects appeared, and none of dextrocardia, according to Cabot. I have been able to review 12 cases of congenital dextrocardia occurring since 1917.

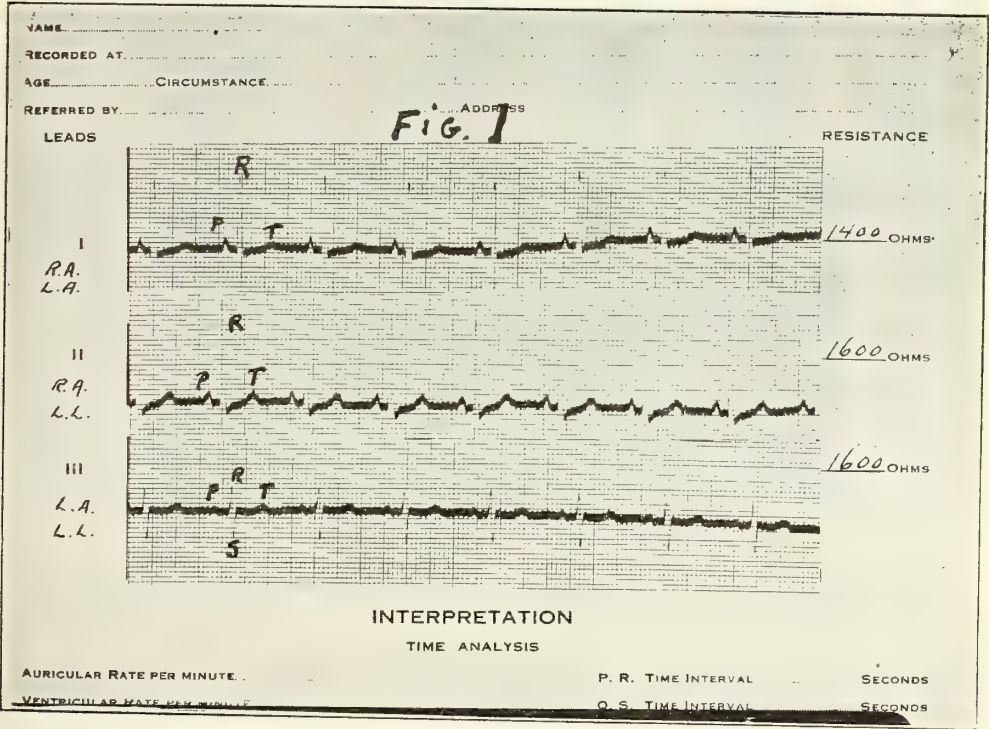


Fig. 1.—ELECTROCARDIOGRAM

While taking the electrocardiogram, before seeing the report by Jones, it occurred to us to have the leads go through the right side in the same manner as the usual left side leads. We expected the mirror cardiogram, but as the case is one of dextroversion and not inversion, no mirror cardiogram was obtained and the second graph is not published. The cardiogram is practically normal.

The majority of these cases were in infants and young adults, the oldest patient being 59 years of age. Some had transposition of the abdominal organs as well as of the heart

the thoracic cavity, such as empyema, pleurisy and tuberculosis. Acquired conditions may be easily differentiated from congenital by electrocardiograms and x-ray examination.

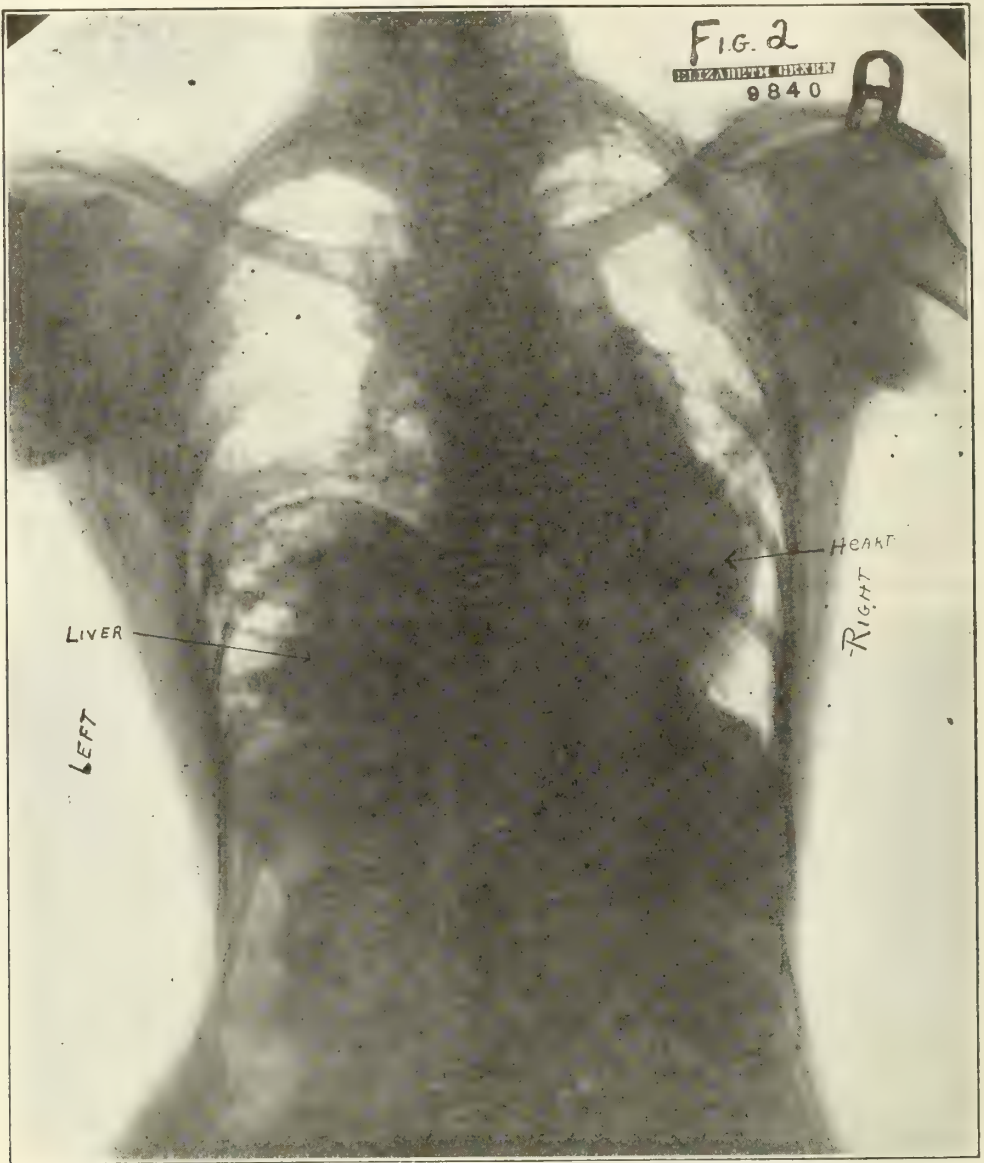


Fig. 2.—RADIOGRAM OF THE CHEST

X-rays show the heart on the right side and it seems to be swung to the right like a pendulum suspended by the great vessels. Picture also appears more like a dextro-version.

(complete heterotaxia); others dextrocardia alone, without transposition of the abdominal organs (incomplete heterotaxia). There also appear numerous reports of acquired dextrocardia, resulting from deforming diseases and diseases creating adhesions and fibrosis within

H. W. Jones (Brit. Med. Jour., Jan. 26, 1924, p. 147) has classified these conditions as follows:

Inversion (mirror image of the heart with inversion of cavities). (1) Complete. (2) Incomplete: (a) Transposition of viscera

with heart in normal position. (b) Complete inversion of thoracic organs with liver in midline. (c) Inversion of the heart only.

Dextroversion. Heart displaced to right

ally to "changed position of the primary cardiac tube in early embryonal life, a reversal direction from the normal 'S' probably caused by reversal direction of the blood cur-

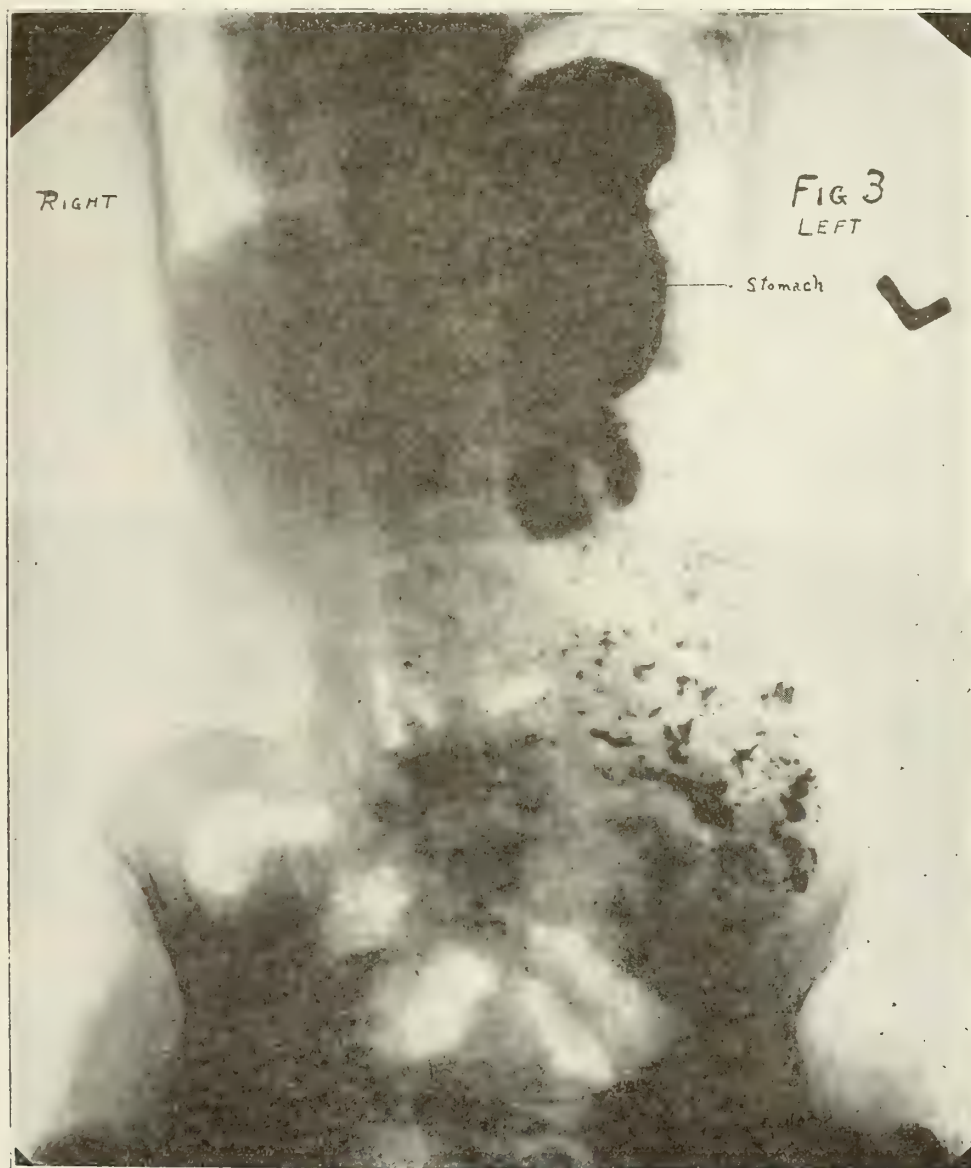


Fig. 3.—RADIOGRAM OF ABDOMEN

The stomach is small, vertical, on the left side, and apparently crowded close to the diaphragm by the liver. The liver, which is on the right, is misshaped and in its turn crowded by the heart.

without inversion of cavities. (1) Congenital. (2) Acquired.

Jones obtained a normal cardiogram in 1 case of complete inversion by reversing the electrodes in Lead I.

Hirschfelder attributes the condition usu-

rent, from alteration of the usual relationship of embryo to primitive chorion, so that the right side is placed nearest its blood supply instead of the left side."

Most reports ignore hereditary tendencies or family history, but Neuhof (Jour. A. M.

A., April 5, 1913) reported dextrocardia occurring in brother and sister.

Symptoms. Most dextrocardiacs have no symptoms referable to the changed position of the heart, but some patients are conscious of the heart beating on the right side, and some suffer with palpitation. They appear to be more susceptible to valvular disease and circulatory disturbances than normals. I have only found 1 patient over 40 years of age reported.

Of 2 cases that I examined, one was a "freak" who made his living by exhibiting himself to physicians for a fee, and was a middle-aged stout man with high blood pressure who might be classed as a cardionephritic. The other was a man in his thirties, who had been in an automobile accident and was bringing suit for injuries to his heart, claiming that he had been suffering with symptoms of decompensation since the accident; he was unaware that his heart was on his right side until the day of his trial.

CASE REPORT

Mrs. Sarah D. Age 74. Born in Scotland. Weight 85 pounds. Father lived to be "an old man"; mother died at 60, of "consumption"; 2 brothers and 2 sisters living; 2 children living and well.

In 1915, becoming blind from double cataract, operation on left eye was unsuccessful, and eye had to be removed. At that time her recorded blood pressure was 210/180. Urine contained traces of albumen and granular and hyaline casts. In 1920, operation on right eye allowed perception of light, for a time. One would judge that the patient had had arteriosclerosis at least since 1915.

On January 1, 1929, she was admitted to the Elizabeth General Hospital, following a sudden loss of function in left arm and hand, with palpitation. Her mind had been confused for several years, and she was irrational when admitted.

Examination. A very thin small woman. Left eye removed; perception of strong light, right eye. Slight loss of power, left hand and arm. Mental condition: Answers questions like a person with Korsakoff syndrome; laughs or cries easily. Knee jerks exagger-

ated, more marked left side. Unable to stand or walk. Partial loss of bladder control. Apex fifth space to right of midclavicular line. A murmur which appeared at times systolic and at other times pre-systolic, at apex to right. Second sound sharp and snappy. Blood pressure: Systolic 175 to 185; diastolic 90 to 95. Pulse 80 to 120.

Laboratory Reports. Blood count: Red cells 4,900,000; white cells 8500; hemoglobin 70%; polys 80%, monos 18%, endothelials 2%. Blood chemistry: N P N 30. Wassermann reaction negative.

The case is apparently one of dextrocardia without inversion and without transversion of viscera, complicated by arteriosclerosis and mitral stenosis. At the present writing (October 1929) the patient is improved. Her systolic blood pressure is 190; there is no loss of function, slight weakness in extremities; no decompensation.

CHRONIC PARANASAL SINUS DISEASE IN THE EXPERIENCE OF THE INTERNIST

RICHARD A. KERN, M.D.,

Assistant Professor of Medicine, and

LOUIS A. GODEY

Fellow in Clinical Medicine,
University of Pennsylvania

Philadelphia, Pa.

Chronic paranasal sinus disease is an extremely common affection. While at times a purely local matter, it is very often associated with diseases elsewhere in the body; diseases to which the sinus condition may be secondary, or in the cause of which the sinus disease may play a part. It is not surprising therefore, that many, probably the great majority of, patients afflicted with chronic sinusitis first present themselves to the general practitioner and the internist.

The extranasal diseases with which chronic sinusitis may be associated may be subdivided into (a) those due to metastasis from focal infection in the sinuses, and (b) chronic suppurative infections of other parts of the res-

piratory tract to which the sinusitis may bear either an etiologic or a secondary relation.

The rôle of the paranasal sinuses as foci of infection is relatively well appreciated. Experience has fully shown that chronic sinusitis may often be a cause of such conditions as iritis, choroiditis and keratitis; subacute and chronic arthritis; neuralgias, especially of the face and arms; nephritis, myositis, and certain forms of cardiac and vascular disease. In the investigation of patients with these diseases, the sinuses are examined as a matter of routine, quite as are the teeth, tonsils, and the prostate.

The relation of sinusitis to disease of other parts of the respiratory tract is, however, not as well appreciated as it should be. Direct extension of infection from one part of the respiratory tract to another occurs easily and frequently. In the sinuses, more so than in any portion of the respiratory tract, does infection, once established, tend to become chronic, because of anatomic conditions. We know that chronic sinusitis is a common cause of recurrent colds. The infection lies dormant until the individual's resistance is sharply lowered by an intercurrent factor, such as exposure, fatigue or loss of sleep. Then it flares up, and promptly seeds the congested mucosa of the nasopharynx with a new infection that may easily enough extend to the tracheobronchial tree. This chain of events, often repeated, will in time produce a chronic bronchitis. In some individuals, especially those of an allergic strain, an asthmatic bronchitis may result. Finally, the continued bronchial infection and chronic cough may produce structural changes and a resultant bronchiectasis. We do not sufficiently recognize, however, that chronic sinusitis may be caused by infection lower in the respiratory tract. Purulent bronchial secretion occurs in a number of conditions, such as lung abscess, bronchiectasis, at times in bronchial asthma, or in ulcerative pulmonary tuberculosis with mixed infection. Repeated spraying of the nasal chambers with coughed-up pus may in time produce a chronic sinus infection. Once started, this sinus infection will tend to perpetuate the bronchopulmonary infection which started it.

It is my purpose, therefore, to present some data on the incidence of chronic sinusitis, the relation of chronic sinusitis to certain types of bronchopulmonary disease, and discuss some of the problems of diagnosis and treatment of sinus disease.

Incidence. How frequent is chronic sinus infection? Recently, Dr. Harry P. Schenck and I had obtained some figures on the incidence of sinus disease in 200 asthmatics and we wished to compare them with figures for individuals not affected with obvious respiratory disease. We, accordingly investigated a group of 50 individuals who gave no history of recent respiratory disease, no history of recurrent colds, no history of sinus disease in the past, and whose ages fell proportionately into the same decades as those of our asthmatic patients. A group so selected may well be considered as better than any average group. Yet 36 (72%) gave x-ray evidence of sinus abnormality, while in 13 (26%) there were positive clinical findings. In fact, in only 11 (22%) were both examinations negative. We have every reason to believe that some of these abnormal findings were the result of sinus disease in the past rather than an indication of active sinusitis, and we cannot assume, therefore, that 78% of persons in this part of the country have active sinus infection. But it is probable that 78% of our population have or have had at some time in their lives a sinus infection. We tried to arrive at some measure of the degree of involvement by a count of the number of sinuses involved per person. If each main sinus or sinus group be counted as one, and if a patient had an involvement of both antrums, both frontal sinuses, both ethmoid and sphenoid groups, in other words, a pansinusitis, his sinus involvement figure would be 8. If only 1 antrum or the ethmoid cells on one side were affected, the patient's sinus involvement figure would be 1. In the group of 50 persons just referred to the sinus involvement figure, based on x-ray findings, was 3.98 while that derived from clinical observations was 2.34. Not only is sinus disease of frequent occurrence, but it is likely to involve more than a single sinus, probably one-half of the sinuses of the patient.

Bronchial Asthma. Schenck and the writer, in a study of 200 patients with bronchial asthma, found an incidence of sinus abnormality in 80.5% on x-ray examination and in 67% on clinical examination. One or the other examination was positive in 86.5%. The sinus involvement figure per patient was 4.14 on x-ray and 3.42 on clinical examination. Here again, as we were able to show in a number of instances, the abnormal findings, especially by x-rays, were the result of past sinus disease, no longer active, but which had produced permanent change in the sinus. Nevertheless, at least 2 out of every 3 asthmatics have active sinus disease. One cannot, at this time, enter into a discussion of the rôle of sinusitis in bronchial asthma. Clinical experience, however, has shown that unless the existing sinus disease is adequately treated the patient will probably not be completely relieved of his asthma, regardless of what other etiologic factors may be active in his case.

Bronchiectasis. Chronic sinus infection, while a recognized factor in bronchiectasis, has not received the attention it deserves. In our experience, both the incidence and degree of sinus involvement is higher in bronchiectasis than in any other condition. In a series of 21 bronchiectasis patients seen in the wards of the University Hospital, 16 (76.2%) gave clinical evidence of sinus disease, while in every one the x-rays showed sinus abnormality, an incidence of 100%. In 9 of the 21, x-rays showed involvement of every sinus, a pansinusitis, while the average involvement per patient was 5.62. Attention is called to the fact that these patients, although seen in a clinic for adults only, were largely younger individuals: only 3 of the 21 were past the age of 40; 15 were under 30; 7 were 20 or less. Bronchiectasis is a well recognized and not infrequent condition in childhood. Chronic sinus infection is probably as prevalent in these children as it is in adults. The significant point is that all treatment of bronchiectasis is doomed to failure unless the sinus disease is properly treated at the same time.

Lung Abscess. In this condition there is usually a profuse, purulent sputum, which, as

one might suspect, can infect the sinuses. While lung abscess may arise from a variety of causes, there is one type of lung abscess in which we may presuppose a fairly normal state of things, at least so far as the sinuses are concerned, prior to development of the lung abscess: that is, the abscess that may follow tonsillectomy. Yet an examination of 6 patients with post-tonsillectomy lung abscess showed clinical evidence of sinus disease in 5 (83%) and x-ray evidence in every patient. One case is of particular significance: An x-ray study of the sinuses 6 months after onset of the abscess showed all sinuses normally clear. Ten weeks later, the radiograph showed dense clouding of both antrums and of the ethmoid cell group, and these findings were confirmed by the rhinologist. It is not surprising that sinus infection should develop in the course of lung abscess. It must be remembered, too, that cure of the lung abscess will be delayed or possibly even prevented if the sinusitis is not corrected.

Time does not permit to go through the list of chronic respiratory tract infections that are attended by purulent sputum. Sufficient evidence has been presented, however, to justify these statements: Chronic sinusitis is extremely common in patients with chronic infections of the bronchopulmonary tree and plays a definite rôle in either the causation or the continuance of such bronchial or lung disease. In the study of such patients we must include a routine investigation of the paranasal sinuses, both clinically and by radiography, and these sinus examinations must be repeated from time to time in those cases that last many months. Thorough treatment of the sinus disease becomes an essential part in the treatment of the great majority of patients with chronic suppurative bronchopulmonary affections.

Diagnosis of Sinus Disease. An internist should not have much to say on this subject to a group of rhinologists. However, in the course of my hospital and private practice, in which asthma and lung affections figure rather largely, I have had frequent occasion to refer patients to the rhinologist and the roentgenologist for sinus study. It soon became evident that there were frequent dis-

crepancies between the reports of findings, discrepancies which were at times proved due to error on the part of one or other of these examiners. Schenck and I therefore decided to subject a series of 200 asthmatics first to a clinical, then to an x-ray sinus examination, and finally to an operative investigation of the affected sinuses. Unfortunately, we were unable to investigate even a majority of the sinuses under suspicion; in many instances the patient refused operation, or failed to return for further study after one sinus had been investigated; at times we were unable to convince the rhinologist that a sinus which was positive to radiograph but negative clinically should be opened. However, enough data were obtained to show that neither examination is wholly efficient, and to point out some of the fallacies of each method.

In our study the clinical examination was made first in every instance. Previous experience had taught us that the clinical examiner might be unduly influenced by the x-ray report; with a previous knowledge of the x-ray findings the rhinologist's report tended to agree with the x-ray report far more frequently than was otherwise the case. The rhinologist was told, however, that his findings were to be compared with a later x-ray examination. The clinical examination, of course, routinely included direct inspection before and after shrinkage of the mucosa, routine use of the nasopharyngoscope and routine transillumination. In an increasing number of patients we are using lipiodol injections into the sinus prior to radiographing. While the x-ray examination followed the clinical, the roentgenologist was not informed of the clinical findings. His examination was, therefore, also an entirely independent and unaided one.

In forming an opinion of the state of the sinuses, the rhinologist has numerous difficulties to encounter. Transillumination is available for the frontal and maxillary sinuses. But light transmission may be altered by numerous anatomic variations, such as variations in thickness of bone, in size of the sinus, asymmetry, bony septa or the congenital absence of a sinus; and such altered light transmission may be erroneously interpreted

in terms of pathologic change. The examiner's information is largely based on indirect evidence obtained by intranasal observation: this is often enough limited by septal deformity or the presence of large polypoid masses. The findings of pus in certain regions, or of degenerative changes in the mucous membrane in these regions, is of course significant: but the overlapping of drainage areas may again confuse the issue. Pus from both frontal and anterior ethmoidal cells is discharged into the middle meatus. Pus in the olfactory fissure may come from the posterior ethmoidal cells or the sphenoidal sinus; and direct inspection of the sphenoidal ostium through the nasopharyngoscope is possible in less than 30% of cases. Nor does the absence of pus in a drainage area on one or even several examinations necessarily rule out sinus disease. The roentgenologist also is confronted by certain difficulties. He, too, must consider variations incident to age and sex, asymmetry, bony septa, the congenital absence of a sinus. Sinuses may be so situated that the shadows of adjacent groups will overlap. Permanent change in the sinus wall has resulted from previous sinus disease, or from disease involving the sinus wall from without, such as dental disease affecting the antrum. Acute disease may be of too recent standing to have produced roentgenographic change. It is no wonder, therefore, that neither mode of examination is 100% accurate, or comes anywhere near being so. Without going into too great detail, I would like to tell you something of our findings as to the efficiency of these methods of examination.

No frontal sinuses came to open operation, so that we have no check on either examination.

In study of the ethmoidal sinuses, the x-ray error was decidedly less than the clinical. The roentgenologist failed to recognize 8 of 68 diseased ethmoidal groups, 4 of which were apparently of acute and recent infection; overlooked polyps in 3 instances; reported as pathologic 2 ethmoidal groups which were found normal at operation, and in one of these, at least, it is quite probable that the x-ray findings were due to a previous sinusitis. The total x-ray error in the ethmoidal

group was 14.3%. The clinical error in this group lay wholly in the matter of overlooking active sinus disease, an error that occurred 17 times out of 70, or 24.3%. All 17 had given positive x-ray findings. In most of these frank pus was found in the sinuses, yet no secretion was present within the nose. The importance of making repeated clinical examinations in such cases before giving a negative report is obvious.

In the sphenoidal group, radiography missed only 2 of 20 diseased sinuses, an error of 10%. The clinical examiner was wrong in 6 instances, an error of 30%. Five times chronic disease was overlooked, an error due once to the absence of pus in the nose, once to ascribing pus drainage only to posterior ethmoidal disease, and twice to the presence of polyps. In 1 instance a normal sphenoidal sinus was called "diseased" through wrongly attributing pus of ethmoidal origin to both sphenoidal and ethmoidal cells.

The figures of alleged error in examination of the antrum were amazing. The roentgenologist, while overlooking only 3 diseased antrums in 110 investigated (2.6%) is said to have reported 50 normal antrums as being pathologic, an error of 45.6%. Nor did the clinical examiner seem to do much better: he overlooked 10 diseased sinuses (9.1%) but is alleged to have called 38 normal sinuses diseased, an error of 34.5%. These figures are, of course, incorrect. The error arose from the fact that the clinician in 31 instances based his opinion "normal sinus" on the negative irrigation findings. This is absolutely fallacious. It is well known that antrum washings will be returned clean in case of antral polyps, diseased mucosa or in the presence of inspissated secretion. In one of our patients with both antrums opaque to transillumination and x-rays, sinus washings were clear on occasions. Open operation was, however, insisted upon, and both antrums were found filled with polyps. Yet in spite of this and similar instances, we were often enough unable to convince the rhinologist of the necessity of open operation on all suspicious antrums. However, a sufficient number were opened to show that there is a definite x-ray as well as a clinical error. X-ray examina-

tion tended to miss early acute disease; it recorded as abnormal a number of antrums which on open operation were found normal; the degree of change in these cases ranged from "slight haziness" to "dense clouding", but in such instances it is probable that the x-ray change was due to former sinus disease. The clinical examiner, likewise, was at times proved in error; and more often than the roentgenologist. The chief pitfall for the clinical examiner seemed to be in the interpretation of transillumination findings. In a number of instances, a sinus, clear on transillumination, was found at operation to contain pus. Antral polyps and occasionally inspissated secretions gave normal transillumination findings. Thickened mucosa, the result of former disease, or bony or periosteal change of similar origin was found to alter light transmission and lead to error at times.

There is a relative x-ray error to which I should like to call attention at this time. The roentgenologist frequently attempts to interpret changes noted in the films in terms of pathologic change, such as "polyps", or "thickened mucous membrane". While these diagnoses were at times found to be correct, they were sufficiently often incorrect to make them unreliable. A report "thickened mucous membrane" might well be interpreted as indicative of inactive disease and consequently make operation unnecessary. Yet in a number of such instances, frank pus was found at operation.

It seems reasonable to conclude, therefore, that either method of examination may fail to find active disease, the radiograph tending to miss recent acute infection, while the clinical examination overlooks chronic disease in the absence of abnormal secretion in the nose, or when diseased sinuses transmit light normally. On the other hand, positive findings may be obtained especially by radiograph but also by transillumination, in the absence of active sinus disease; positive findings which are due to permanent changes in the sinus walls affected by preëxisting disease. Neither method is wholly accurate; both must be used to supplement one another. In a patient in whom sinus disease may be a cause of disease elsewhere, and in whom a sinus is placed under

suspicion by either clinical or x-ray examination, we are justified in openly investigating that sinus.

Treatment of Chronic Sinusitis. The problem is, in the first place, of course, the local one in the nose, concerning which I am not qualified to speak. I must insist, however, that thoroughness is essential. The rhinologist may be willing enough to open an antrum but he often has to be urged to open adequately infected ethmoids. It must be borne in mind that intranasal and sinus pathology tend to recur, like weeds in a garden, especially if the first "clean-up" was not complete. However, these are the problems peculiarly of the rhinologist.

But we must not forget that we are treating an ill patient, as well as diseased sinuses: an individual who is suffering from the remote as well as the local effects of an infection. We must endeavor to raise his resistance to infection, and by a number of meas-

ures. Autogenous vaccine therapy is particularly useful. Treatment must be directed toward accompanying phenomena such as anemia and the lowered gastro-intestinal function which so frequently accompanies anemia. We must see to it that our patient is taking a suitable balanced diet. We must investigate our patient's habits and surroundings for factors which might tend to protract or cause recurrences of his infection. I refer to such things as loss of sleep, exposure to cold or excessive dust, to excessively dry air in overheated houses, too much smoking, the frequenting of swimming pools and the like.

The treatment of chronic sinus infection is indeed often a long-drawn and difficult thing. Yet the principles of treatment can be summed up in a few words: thoroughness of local measures in the nose, watchfulness for and prompt treatment of recurrences, and consideration of the patient himself as well as his nose.

In Memoriam

RATH, I Irving, 154 Clinton Place, Newark, 27 years old, died January 26 at Beth Israel Hospital after an illness of 2 weeks. He was a member of the Beth Israel Hospital Clinical Society and had served his senior internship in that institution.

Dr. Rath was the son of Mr. and Mrs. Sigmund Rathsprecher of 105 Leslie Street, who survive him. Also surviving him are a sister, Jean, and two brothers, Jack and Maurice Rath.

Dr. Rath was educated at South Side High School and Newark Junior College and in 1925 was graduated from the University of Maryland Medical College. He served his junior internship in Newark City Hospital. He was a member of the American Medical Association, New Jersey Medical Society, Essex County Medical Society and many fraternal organizations.

ANNUAL CONVENTION

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The 164th Annual Meeting of the Medical Society of New Jersey is scheduled for June 11 to 14, 1930, at Haddon Hall, Atlantic City. Determine now that you will be “among those present”, and proceed at once to make hotel reservation for yourself and family; of course you intend to bring the family in order that your wife, mother, sister or daughter may attend sessions of the Woman's Auxiliary, and that younger members may enjoy a seaside vacation.

The Program Committee has arranged something unusual for your benefit. This year, without neglecting the scientific aspect of medicine, attention will be focused mainly upon professional economics. There will be the usual 4 sessions, on Thursday and Friday, of the Section on Pediatrics and the Section on Ophthalmology and Otorhinolaryngology. There will also be 4 sessions for presentation of scientific matter pertaining to general medicine and surgery. One session will be devoted to short addresses by representatives of the State Health Department, State Board of Education, State Commission on Institutions and Agencies, and similar bodies dealing more or less directly with problems of concern to physicians. Then, Wednesday afternoon is to be devoted entirely to a program of “school medicine”; that is, a series of papers of interest to all physicians who have anything to do with examination and health guidance of school children.

Several eminent physicians from other states have been invited to address the convention, and, altogether, this promises to be an exceptionally fine meeting.

Make notation now on your calendar to reserve that week for vacation and edification. And, make arrangements promptly for your participation in the convention.

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ANTIDIPHThERIA CAMPAIGN

You are requested to read the report on the present status of the Antidiphtheria Campaign (page 269); and if you cannot spare the time to read the entire report, we hope you will read at least the last 3 paragraphs because *they apply directly to you*. The committee has done an excellent piece of work, and the Chairman, Mr. Osborne, especially deserves the highest praise for the energy and persistence with which he has conducted this statewide campaign in the face of many discouraging obstacles. He took up this work, knowing full well what it was going to require in the way of personal sacrifice, at the request of the state medical society—whose officers recognized the fact that he was the right man to be entrusted with this special task. Now, let us give him the active support needed to finish this job with credit to the medical profession, and with assurance that we appreciate his fine work.

PUBLIC RELATIONS DEPARTMENT

With this issue of the Journal we shall change the name of that department we have been calling "Lay Mirror Reflections" and hereafter call it "Public Relations". The change in name is not of itself a matter of much importance, save that it enables us to broaden the character of material published in that section of the Journal and to include along with "what the public thinks of us",

what we think of some public questions. Our public educational program and our negotiations with lay organizations of one kind or another have now reached such a stage of development that it is necessary to consider both these aspects of many questions affecting the medical profession. If we would guide the public in medical matters, aid in directing the work of lay organizations into proper channels for the betterment of public health, and at the same time safeguard our own professional interests, we must give serious thought to some of these problems and it is highly important that we keep pace with, as well as guide, public opinion. The Welfare Committee of the state society is recognized as that organization's most important standing committee, and what corresponds thereto in each county society should be occupying an equally prominent position. We shall endeavor to keep this department supplied with *live* material, and will at all times welcome communications from members regarding subjects discussed or to be presented here.

IN THIS NUMBER

The 12 original articles presented this month include 6 relating to problems in urology, and all of them written with a view to presenting these topics in form interesting to general practitioners. The second group of 6 papers deals with a variety of subjects: 3 relating to pediatrics; 1 to nasal disease as a

source of focal infection, and as studied by an internist, not by a rhinologist; 1 concerning heart disease; 1 indicating some of the difficulties encountered and the results obtainable by employment of oxygen in the treatment of pneumonia. Since we have had to increase the number of papers published monthly, we have striven to correlate them in a measure but, at the same time, to provide such an assortment of scientific matter as would supply at least one topic of interest for each of our members. We have reason to believe the plan is succeeding fairly well, for there has been an increasing number of favorable comments received with reference to that portion of the Journal.

The department of Ethics has been given over for this issue, through the courtesy of Dr. Bradshaw, to the publication of a group of papers recently read before the Passaic County Medical Society. In the papers by Drs. Bradshaw and Morrison you will find a series of practical problems suggested for consideration. Ethics is ever a live question for discussion in medical circles, and some of the developments in modern business make it important to keep in mind the fundamental principles upon which professional dealings are conducted. Some of the newer developments, such as were referred to last month in our discussion of *contract practice*, make it rather imperative that we give thought to the possible necessity for revising the phraseology of some portions of the code; but that can be done without sacrificing any of the principles. Industrial medicine and contract practice are 2 matters that require careful thought at the present time.

PARROT FEVER

The recent death of an attendant in the Hygienic Laboratory in Washington, and of Dr. William Royal Stokes, City Bacteriologist, of Baltimore, from psittacosis has lent new impetus to the newspaper publicity concerning this disease and, in view of the infrequent occurrence of this infection and the consequent and natural relative unfamiliarity with its manifestations, has suggested this brief résumé of its salient features.

There is nothing new under the sun and parrot fever, or psittacosis, is not a new disease. As a disease of parrots it has long been known but the fact that it could be transmitted to man was first recorded by Ritter in 1879 when he traced an outbreak of pneumonia to infection transmitted from infected parrots. Similar outbreaks were reported in 1882, 1886 and 1892, after a severe outbreak in Paris, and the cause of the disease was announced by Nocard as the *Bacillus psittacosis*. Since that time reports have been made from France, England, Germany, and America.

For some time after Nocard's work, while the relation of *Bacillus psittacosis* to disease in parrots was not questioned, there was considerable doubt of its pathogenicity for man, because of the failure to find it in blood cultures, and the occurrence, instead, of other organisms such as the pneumococcus, streptococcus, and *B. coli*. The cumulative experience of numerous observations, however, makes it impossible to doubt that parrot fever may be transmitted to human beings although there is still some question as to the exact rôle played by *B. psittacosis* which may, as indeed first suggested by Nocard, merely pave the way for the secondary entrance of other organisms.

This much may be regarded as established: Psittacosis is primarily a disease of parrots that may be transmitted to man and while its occurrence is largely confined to those who have come into rather intimate contact with diseased parrots, because of an apparent high degree of human susceptibility it may be passed from one individual in a household to another.

Bacillus psittacosis belongs to the *Salmonella* or paratyphoid group and produces in parrots a highly fatal infection with a mortality of from 50 to 95%. The diseased birds show a general debility, loss of appetite, chronic diarrhea, rapid emaciation and death, the organisms being found in all the organs, as well as in the blood and bone marrow. In addition to the parrot and parakeet, other birds and animals (fowl, rabbit, mouse, and guinea-pig) may be artificially infected.

The disease is transmitted to man by contact with infected parrots whose feathers, because of the diarrhea, are infected; the con-

tamination being carried to the beak and tongue with which the parrot cleans itself.

While it is usually assumed that contact with the birds must be intimate, it being rather common to allow pet parrots to take food from their owner's mouth, the infection and death of attendants working with infected birds in laboratories, aware of their disease and, presumably, taking all proper precautions, shows that extreme care is necessary.

The manifestations of the disease in man are erratic and puzzling. Abdominal symptoms, while they occur, are not the rule. While the onset may be sudden, with chill, fever and abdominal upset, the disease may also begin insidiously somewhat like typhoid or paratyphoid fever with malaise, headache, and fever. The diagnosis, as indeed is always true in medicine, is based upon probability which becomes an actuality by force of accumulating corroborative data. To be recognized, the possibility must first be thought of. Then, providing the patient has had access to diseased parrots, and especially if these are recent importations particularly from South America, the presumptive diagnosis of psittacosis is warranted, the probability being increased if the symptoms include an atypical pneumonia, fever, and inconstant abdominal manifestations.

Laboratory studies, while they should never be omitted, are of little aid. The blood count is not characteristic, blood cultures are inconstant and obtainable only with difficulty, most likely because the disease is not thought of until the stage of invasion, the most propitious for blood culture, is long past. Agglutination reactions have not been obtained.

That the human being is highly susceptible is shown by the fact that one case in a household usually leads to others.

The mortality is high, especially when there is definite pneumonic involvement; being 34% in the epidemic of 1892 and the same in 70 cases occurring in Paris from 1892 to 1897. In the present outbreak in this country there have been so far approximately 40 or 50 cases with 10 or 12 deaths.

Treatment is entirely symptomatic, no specific method being available although the se-

rum of recovered cases has been used, when available, with inconstant results.

Prevention of the disease is achieved by the institution of strict sanitary measures by those who have come into contact with sick parrots and strict isolation of human beings who have the disease, with precautions similar to those applicable to any infectious or contagious disease.

There is little danger of a general epidemic as the disease is not sporadic and does not occur in the general population except when associated with the importation of sick parrots. Parrots long kept as household pets are not likely to contract the disease spontaneously but, nevertheless, should not be handled too intimately, in the interests of sanitation in general.

An important factor in preventing spread of the disease is early recognition of its possible presence. As the old saying has it: "One sees only what one knows."

POST-GRADUATE COURSES

The Medical Society of New Jersey is inaugurating a state-wide offering of post-graduate instruction to its members. (See February Journal, pages 147-149). Its representatives believe that if this effort is supported by whole-hearted interest it will prove of decided worth, to those who subscribe to it.

Furthermore, it is susceptible of becoming the foundation of subsequent intensive courses in various subjects which will satisfy the needs of all our members.

Looking forward to future development of this work in a degree not now possible to envisage, the Committee hopes that wide advantage may be taken of the present courses. The work of organization is going forward all over the state, and in some counties has progressed to a gratifying stage.

Your own county or regional committee is working hard; get behind it, aid it by *your own subscription, and your own personal effort to interest others.*

In return for your support we pledge ourselves to endeavor mightily to see to it that you are well repaid in results.

Collateral Reading

A PREFACE TO MORALS

BY WALTER LIPPMANN

(Reviewed by the Editor)

Not since we reviewed Dimnet's "Art of Thinking" have we found a book that seemed so worthy of commendation—until we encountered Lippmann's dissertation on morals of the present day. These 2 books should be in the library of every intellectual being; certainly in the possession of everyone who aspires to intellectuality. "Preface to Morals" is not a book to be easily reviewed, but we may, possibly, be able to give you some idea of its content and thus arouse sufficient interest to make you desire a personal reading of the volume.

It may not be amiss to explain that Mr. Lippmann is the Editor of the New York World, and that he is a distinguished "man of letters" credited with authorship of a long list of previously published books and magazine articles ranging from politics to poetry. His style is excellent, and he has the faculty of so writing that even a "dry as dust" topic becomes interesting reading matter. You will, for instance, find the "preface to morals" as fascinating as a novel.

The book is divided into 3 parts: Dissolution of the Ancestral Order; Foundations of Humanism; and, Genius of Modernity. The subdivisions are too numerous to mention here, but constitute an orderly and systematic arrangement that facilitates a logical study of all the questions involved in the transition from the old to the new order of things.

Starting off with the mental perplexities of the intelligent man of today who occasionally halts in his hurried existence long enough to think about life and living, he says:

"Among those who no longer believe in the religion of their fathers, some are proudly defiant, and many are indifferent. But there are also a few, perhaps an increasing number, who feel that there is a vacancy in their lives. This inquiry deals with their problem. It is not intended to disturb the serenity of those who are unshaken in the faith they hold, and it is not concerned with those who are still exhilarated by their escape from stale orthodoxy. It is concerned with those who are perplexed by consequence of their own irreligion. It deals with the problem of unbelief, not as believers are accustomed to deal with it, in the spirit of men confidently calling the lost sheep back into the fold, but as unbelievers themselves must, I think, face the

problem if they face it candidly and without presumption.

When such men put their feelings into words they are likely to say that, having lost their faith, they have lost the certainty that their lives are significant, and that it matters not what they do with their lives. If they deal with young people they are likely to say that they know of no compelling reason which certifies the moral code they adhere to, and that, therefore, their own preferences, when tested by the ruthless curiosity of their children, seem to have no sure foundation of any kind. They are likely to point to the world about them, and to ask whether the modern man possesses any criterion by which he can measure the value of his own desires, whether there is any standard he really believes in which permits him to put a term upon that pursuit of money, of power, and of excitement which has created so much of the turmoil and the squalor and the explosiveness of modern civilization.

These are, perhaps, merely the rationalizations of the modern man's discontent. At the heart of it there are likely to be moments of blank misgiving in which he finds that the civilization of which he is a part leaves a dusty taste in his mouth. He may be very busy with many things, but he discovers one day that he is no longer sure they are worth doing. He has been much pre-occupied; but he is no longer sure he knows why. He has become involved in an elaborate routine of pleasures; and they do not seem to amuse him very much. He finds it hard to believe that doing any one thing is better than doing any other thing, or, in fact, that it is better than doing nothing at all. It occurs to him that it is a great deal of trouble to live, and that even in the best of lives the thrills are few and far between. He begins more or less consciously to seek satisfactions, because he is no longer satisfied, and all the while he realizes that the pursuit of happiness was always a most unhappy quest. In the later stages of his woe he not only loses his appetite, but becomes excessively miserable trying to recover it. And then, surveying the flux of events and the giddiness of his own soul, he comes to feel that Aristophanes must have been thinking of him when he declared that 'Whirl is King, having driven out Zeus.'

Referring to the much criticized "younger generation", he touches a vital point:

"What most distinguishes the generation who have approached maturity since the debacle of idealism at the end of the War is not their rebellion against religion and the moral code of their parents, but their disillusionment with their own rebellion. It is common

for young men and women to rebel, but that they should rebel sadly and without faith in their own rebellion, that they should distrust the new freedom no less than the old certainties—that is something of a novelty.”

The middle section of the book is devoted to an analysis of living, what we ask of life, and our struggles, successes and disappointments in the effort to adapt ourselves to conditions.

“The discovery that our wishes have little or no authority in the world brings with it experience of the necessity that is in the nature of things. The lesson of this experience is one from which we shrink and to which few ever wholly accommodate themselves. The world of the child is a kind of enchanted island. The labor that went into procuring his food, his clothes, his toys, is wholly invisible at first. His earliest expectations are, therefore, that somehow the Lord will provide. Only gradually does the truth come home to him how much effort it costs to satisfy his wants. It takes even longer for him to understand that not only does he not get what he wants by asking for it but he cannot be sure to get what he wants by working for it. It is not easy to accept the knowledge that desire, that prayer, that effort can be and often are frustrated, that in the nature of things there is much fumbling, trial and error, deadlock and defeat.

The sense of evil is acquired late; by many persons it is never acquired at all. Children suffer, and childhood is by no means so unreservedly happy as some make it out to be. But childish suffering is not inherently tragic. It is not stamped with the irrevocability which the adult feels to be part of the essence of evil. Evil for the child is something which can be explained away, made up for, done away with. Pretentious philosophies have been built on this fancy purporting somehow to absorb the evil of the world in an all-embracing goodness, as a child's tears are dried by its mother's kisses. The discovery that there is evil which is as genuine as goodness, that there is ugliness and violence which are no less real than joy and love, is one of those discoveries that the adult is forced somehow to accept in his valuation of experience.

And then there is the knowledge, which only experience can give, that everything changes and that everything comes to an end. It is possible to tell a child about mortality, but to realize it he must live long enough to experience it. This knowledge does not come from words; it comes in feeling, in the feeling that he himself is older, in the death of kin and friends, in seeing well-known objects wear out, in discarding old things, in awaken-

ing to the sense that there is a whole new generation in the world which looks upon him as old. There is an intimation of immortality in our youth because we have not yet had experience of mortality.”

The third portion of this book deals with present-day problems, many of which intimately concern the physician, and must be read in full to be properly understood and appreciated. No abstract can do it justice, but we may entice you to a reading of those 118 pages by quoting the final philosophic concluding paragraphs:

“The philosophy of the spirit is an almost exact reversal of the worldling's philosophy. The ordinary man believes that he will be blessed if he is virtuous, and therefore virtue seems to him a price he pays now for a blessedness he will some day enjoy. While he is waiting for his reward, therefore, virtue seems to him drab, arbitrary, and meaningless. For the reward is deferred, and there is really no instant proof that virtue really leads to the happiness he has been promised. Because the reward is deferred, it too becomes vague and dubious, for that which we never experience, we cannot truly understand. In the realm of spirit, blessedness is not deferred; there is no future which is more auspicious than the present; there are no compensations later for evils now. Evil is to be overcome now and happiness is to be achieved now, for the kingdom of God is within you. The life of the spirit is not a commercial transaction in which the profit has to be anticipated; it is a kind of experience which is inherently profitable.

And so the mature man would take the world as it comes, and within himself remain quite unperturbed. When he acted, he would know that he was only testing an hypothesis, and if he failed, he would know that he had made a mistake. He would be quite prepared for the discovery that he might make mistakes, for his intelligence would be disentangled from his hopes. The failure of his experiment could not, therefore, involve the failure of his life. For the aspect of life which implicated his soul would be his understanding of life, and, to the understanding, defeat is no less interesting than victory. It would be no effort, therefore, for him to be tolerant, and no annoyance to be skeptical. He would face pain with fortitude, for he would have put it away from the inner chambers of his soul. Fear would not haunt him, for he would be without compulsion to seize anything and without anxiety as to its fate. He would be strong, not with the strength of hard resolves, but because he was free of that tension which vain expectations beget. Would

his life be uninteresting because he was disinterested? He would have the whole universe rather than the prison of his own hopes and fears, for his habitation, and in imagination all possible forms of being. How could that be dull unless he brought the dullness with him? He might dwell with all beauty and all knowledge, and they are inexhaustible. Would he, then, dream idle dreams? Only if he chose to. For he might go quite simply about the business of the world, a good deal more effectively perhaps than the worldling, in that he did not place an absolute value upon it, and deceive himself. Would he be hopeful? Not if to be hopeful was to expect the world to submit rather soon to his vanity. Would he be hopeless? Hope is an expectation of favors to come, and he would take his delights here and now. Since nothing gnawed at his vitals, neither doubt nor ambition, nor frustration, nor fear, he would move easily through life. And so whether he saw the thing as comedy, or high tragedy, or plain farce, he would affirm that it is what it is, and that the wise man can enjoy it."

Medical Ethics

(In lieu of our usual monthly discussion of some topic relating to ethics, we are with permission of Dr. Bradshaw, devoting this space to publication of a symposium on modern ethical problems, as presented at the January meeting of the Passaic County Medical Society.—ED.)

SOME ETHICAL AND UNETHICAL CONTACTS

JOHN HAMMOND BRADSHAW, M.D., F.A.C.S.,
Orange, N. J.

By "contacts" this paper means to include our professional relations with fellow physicians and patients, the church, state, press, druggist, detail man, instrument maker, optician, hospital, and all others (commercial and otherwise); in fact, our necessary associations in the conduct of our professional lives.

The subject is complex. If presented in a certain way, it may even cause antagonism instead of receptivity. Even the word "Ethics" does not always express the idea in mind. Contacts need not necessarily be ethical to be right nor unethical to be wrong. The Word-Analyst, in a definitional attempt to clarify the situation, says that medical *etiquette* is limited to conduct of physicians with each other; while medical *ethics* should include the conduct of physicians toward society as a whole. The subject embraces

motive as well as action; both cause and effect.

If I begin this paper by using the term "fee-splitting", not a few of us may begin to gag. This has, in season and out of season, been exploited and defined; and, in truth, we are all becoming a little weary. Of course, we do not commit acts unworthy of a physician or a gentleman. Are we not all of us law-abiding citizens and honorable men? And when we consider fracture of the common law by ourselves are we not, well, to speak mildly, simply shocked? (Of course, the prohibition law is, we say, another matter!)

But let us partly define the subject in the words of the fellowship pledge of the American College of Surgeons: "Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money seeking and commercialism, as disgraceful to our profession; to refuse utterly all secret money trades with consultants and practitioners; to teach the patient his financial duty to the physician and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's rights, and to avoid discrediting my associates by taking unwarranted compensation."

Now, is not that well stated? The disagreeable term "fee-splitting" is not here mentioned by name. Of course, we would not enter into such a thing as fee-splitting any more than we would lie, steal, kill, commit adultery, or bear false witness against our neighbor!

And yet, sad to relate, when talking to a number of opticians on visiting their stores at a very recent date, I was informed that at least 75% of the oculists in the state of New Jersey accept, and some demand, commissions! Even the writer was brazenly asked by a young surgeon, not many years out of college, that if he referred his major surgery exclusively (and his practice was growing to an amazing extent) could he not be assured of at least 25% of the fee obtained from the operations.

It is good commercialism but bad professionalism to let that interesting (?) detail man tell you that by stocking up your office with many thousand beautifully colored tablets and pills that you can increase your office clientele in an astonishing manner; and regretfully it can be stated that this is no half-truth. But aside from the commercial aspect of the matter is there not a dangerous and injurious influence insidiously working to impair your thinking and scientific brain? It is

so easy to give your patient "Cold No. 2" when you find your big bottle of "Cold No. 1" has become exhausted! Again, the question can be fairly stated: Does not a financial interest in an instrument store, a well advertised optical or an instrument establishment, or even in a drug store, make you a little more inclined to advise your patients to patronize those places rather than to leave them to their own discretion?

When a popular colleague of the writer fitted up a most attractive private hospital, did he not get an edge on many of his fellow surgeons? This was felt rather acutely until one day when calling on a new patient she asked, as her very first question, "doctor, do you have a private hospital?" And the writer, while sadly and regretfully shaking his head, was much enheartened by the quick response: "Oh, I am so relieved!" Now it can be affirmed with but little fear of controversy that the ownership of a private hospital is strictly ethical, but the necessity for covering overhead, the necessity for meeting rental or the assessor, the necessity for defraying without loss the manifold intricacies and burdens of the budget, make the case one of many complications and one in which it is impossible to eliminate the commercial element if one desires to survive.

It is, of course, *infra dig.* and unethical to accept, especially clandestinely, an honorarium from a patient in the free-ward of a hospital. At this very suggestion you will roll your eyes in very horror, yet I can vouchsafe that some of you have known cases wherein this has been done.

You may smile when it is related that the writer once had difficulty in turning out of his office a handsome promoter who desired him to buy stock in a grave yard; giving as an inducement that, as he said, "you buy land by the acre and sell it by the inch". Of course, nothing so brazen was suggested that with a little care on my part this same plot of ground could be nicely and rapidly populated.

Economic pressure, an ever-changing and floating population, and a succession of ever-changing clientele, sadly to say, all tend to make one turn to things materialistic, and among these many material things prominently outstanding is *lucre*—you can call it "filthy" only as to how you obtain it or use it.

You agree with me that it is bad taste after a consultation and the consultant has left, to tell the patient, or his family, that you disagree with him in his diagnosis and treatment. But suppose you honestly think that the proposed new treatment will be injurious to your patient? To whom is your first duty?

There is one thing of which we do not have

to be reminded—that it is legitimate (and in England it is ethically done) for the physician in regular attendance on the patient to charge 4 times his ordinary fee for the value of his own services at a consultation with another doctor. But how many of us do it?

Now suppose you are called in by the mistress of a house to see a servant who, she thinks, is pregnant. If you find her so, you have no right to tell this to her mistress unless the servant gives you her permission. Now, what are you to do? You can be held liable, if she sues you. Furthermore, should you tell a prospective bride or her parents, if they ask you the question directly, whether Mary's young man was ever treated by you or others for syphilis or gonorrhea? The statement of Lord Mansfield, made way back in 1776, still holds good: "If a surgeon was voluntarily to reveal those secrets to be sure he would be guilty of a breach of honour, and of a great indiscretion; but to give that information in a court of justice, which by the laws of the land he is bound to do, will never be imputed to him as any indiscretion whatever." Thus, it is not unethical to secure the name of the abortionist, who caused the death of his patient, in order to have him punished. That this may bring into the public notice and notoriety the name of the lady in the case is just what the abortionist knows and relies upon for his immunity. But suppose you are made, in court of justice, to appear mistaken in the matter (and such cases are on record) where will *you* then get off? Are you not justified in exposing the fact that a child's nurse, or a cook, has a secret disease? And yet cases are on record where the doctor has been held liable for heavy damages for so doing.

Now, the Catholic religion demands that certain of its rules should be obeyed by doctors in attendance upon Catholic patients. In a circular letter by The Rev. M. P. Burke, of the Diocese of Detroit, and Chaplain to St. Joseph's Sanitarium, Ann Arbor, Mich., issued in 1921, we find the following:

"A non viable fetus should not be removed by laparotomy; in other words, operations for ectopic gestation are held up until the fetus is viable (hemorrhage is no excuse).

No premature delivery is permissible if the child is nonviable. Ligation of Fallopian tubes or salpingectomy is illicit. Ditto ovariectomy in child-bearing women. X-raying during pregnancy is illicit. An infant in utero in danger of death should be baptized through the cervix. But the child itself, not the membranes, should be so treated. In abortion, the contents expressed should be baptized if life exists.

Craniotomy is taboo. Neither eclampsia, placenta previa, nor pernicious vomiting justifies interference before the child is viable. A Cesarean section should be performed chiefly to enable a viable child to be delivered and baptized, when birth by normal way is impossible; this, in the interest of the child. Dilatation of the os during pregnancy, introduction of sounds into the uterus, curettement during pregnancy are illicit. Hysterectomy, except for cancer, or when the uterus itself is diseased, is illicit. Ventral or anterior fixation in child-bearing women is illicit except in strong proof of the necessity thereof. Sterilization and castration of male patients are forbidden."

One often runs up against the press. Sometimes this is agreeable, sometimes the reverse, once when the writer was threatened with a malpractice suit, and as he, naturally, thought unjustly, the experience was rather trying. Recently, while attending a prominent citizen with double pneumonia the press, figuratively speaking, camped on his door step; and while referring all inquiries to the family of the patient, perhaps a chance for publicity was neglected. But, glory by reflected light never made much appeal.

The Mayo brothers make a statement, that in their clinic, no operation is ever priced before its performance. But surely there cannot be any claim that the contrary would be unethical, for it is only right that the patient should know beforehand what expenses he will have to meet so that he can arrange his financial affairs to meet them.

On page 8 of the little pamphlet—"Principles of Medical Ethics"—of the A. M. A., we find stated: "it is unprofessional * * * * to employ any methods to gain the attention of the public for the purpose of obtaining patients." Is not this clause a little extreme? If carried to the "bitter end" it would deny us the privilege of even putting a doctor's sign on the house or office. Sometime ago, a Doctor Sturgis, of New York, wrote quite an interesting paper, which he read, I believe, before the Academy of Medicine of New York, and he criticized the rules of the A. M. A. rather severely. He called them childish and far from flattering to our intelligence. But, we ourselves have met with childish doctors (to use a mild expression) to whom even childish rules can apply.

Some years ago a young doctor came to me personally, as I had been for many years the family physician of his friends and kindred, and said that as for himself he expected to stand on his own legs and "do anything he damned pleased". He never had received help from his fellow doctors nor ever ex-

pected any. None of them, he said, had ever helped *him* get rich; and if they expected him to attend their stupid medical societies they were much mistaken. I found that to him the very name of *ethics* was an unspelled word. But you will not be surprised when I further relate that the professional end of the young man was worse than the beginning.

Now, the writer does not pose in these rather scattering remarks, to be a model of ethics himself. We all of us sometime blunder into trouble; sometime trouble is forced upon us. Just a week ago the New York Academy thought the subject of sufficient importance to devote a whole evening to the discussion of ethics, which subject was treated under the following headings:

(1) The overcharging of patients who cannot afford the fees demanded. (2) The publicity obtained by many physicians which indicates that they are better qualified to treat certain conditions than are their colleagues.

(3) The division of fees between specialists and general practitioners.

So, you see, this is one of my excuses for taking your time and your kind attention this evening.

ETHICS AND INDUSTRIAL MEDICINE

JOHN BENNETT MORRISON, M.D.,

Newark, N. J.

I have been requested to speak tonight about the ethics of industrial medicine. So far as the true physician, imbued with the traditions and ideals of medicine, is concerned, the ethics of industrial medicine will always be those of our code. Why should not a physician who elects to follow industrial medicine be governed by the general ethics of our profession? First let us inquire if he is qualified to practice that class of work. Is he able to bring to his patients the necessary knowledge and skill? Can he treat successfully all the emergencies which may arise? Will the injured employee under his care return to his occupation as soon as the average patient suffering from the same infirmity would do if treated by the average physician? When he is in doubt will he call in a consultant and arrange for his Company to pay the bill? Or, if he is in doubt of his ability to treat the case will he refer it to a hospital and place it under the care of a competent member of the staff? If he can conscientiously answer "Yes" to these questions he is ethical except for the debatable question as to whether or not it is ethical to engage in contract work.

Most of the physicians so employed do send

in individual bills for each patient. Some of them are engaged on contract to supervise the work of the team of physicians employed by the "carrier" company and to examine and pass on statements and records in the office. For this they are paid a stipulated salary on contract.

Let us attempt to trace the growth of contract work in medicine. In counties, townships, boroughs, villages, towns and cities we have the town or village or borough physician who is serving on contract. He is paid a stipulated salary to care for the wards of the community. True, they are indigent patients who could not afford the services of a private physician, but that is not the point at issue. The debatable question is whether or not the ethical physician should do part time or contract work. Should these physicians render the municipal authorities individual bills for patients so treated?

We have Soldiers' Homes all over the United States for the care of ex-service men. A grateful people is caring for the soldier's health and comfort. Physicians visit the homes regularly; and they serve on contract. Should they render the government individual bills for the soldiers so treated?

Of recent years, we are compelled by law to have our children in public schools examined every year. We have regularly appointed school physicians who serve on part time or contract. There are upwards of 500 of these physicians serving in New Jersey, and over 350 of them are members of the State Society. Are all these physicians unethical?

In many of the large Life Insurance Companies physicians go over applications or make examinations for from 2 to 4 hours a day, and are engaged in private practice the remainder of their time.

In many of our hospitals we have pathologists who do the work of several institutions at the same time, and for the remainder of the day are engaged in private practice. They are busy with blood chemistry, urine examinations, tissue work, and are of great assistance to the rest of us in private practice.

In our State Institutions physicians serve full time on contract.

Are all these physicians unethical? Do we fail to give them membership in our county and state societies? Do we fail to extend to them the recognition and courtesy which one physician should always extend to another in good standing in the community? Yet these physicians are all doing part time or contract work.

In industrial medicine, the physicians so employed usually render a bill for each in-

dividual case. Some of them are engaged to oversee the others, to head up the medical department and to go over claims in the offices; they are serving on contract. Shall we recognize these men and extend to them good fellowship in our county and state societies? These are all live questions in most of our county societies. Some accept them, some exclude them. Who is right in the matter? Shall the state society decide the issue or shall we pass the buck to the national organization?

With the introduction of Compensation Laws in so many states the question becomes more complicated. Over night, so to speak, there was imposed by law on industrial plants, factories, insurance companies, telephone companies, department stores, packing houses, railways, all employers of labor, the burden of supplying their employees with medical and surgical care and hospitalization when necessary. It was an enormous financial burden and, although the cost has been, as usual, passed on to the consumer, it must be paid for at the source. But the law failed to provide for the character of medical service to be rendered or for the qualifications of those who render it.

There are probably millions of employees so treated, some skillfully, some indifferently, some poorly; and great dissatisfaction is manifested over the treatment so rendered. Some of the industrial plants have installed and equipped small hospitals with a corps of trained nurses. Many of the "carriers" have established similar hospitals or clinics, and again the quality of the service varies from good to fair to poor. This is so marked that in the State of New York labor unions are complaining to the employers very bitterly over the quality of service given to the members of their "locals". They have the power to follow it up and create very serious labor disturbances if these miscarriages in medical and surgical treatment are not rectified and the work as a whole raised to a higher plane.

Now there is another point to be considered at this time, and it is not always given the proper analysis, in my opinion. When the employee decides to accept medical and surgical services from the employer free of charge, he automatically ceases to be any private physician's patient. And if, after being so treated, he wishes to have the factory physician treat his family, he has a perfect right to do so. On the other hand, has the factory physician the right to render such services on request? Is he unethical if he does so? Here again arises a question which we must settle. If a patient is dissatisfied with your treatment and sees fit to engage the

services of another physician for himself or his family, is that physician unethical who so renders the service? The instances are perfectly parallel.

Compensation Laws are here to stay. Industrial Medicine is here to stay. The problem is in a state of evolution. What shall be our attitude toward it? Shall we oppose it, keep the men who are doing contract work out of our societies, or shall we assist in the house cleaning demanded by the labor unions in the State of New York? What will be the attitude of the public to our action, whichever path we chose to follow, whichever policy we adopt?

The Carriers' Associations, again as a result of evolution, realize that they are losing money through inefficient medical attention. They are paying larger hospital bills, paying for longer periods of disability, and in many cases increased amounts for permanent disability, or at least they are paying for greater degrees of permanent disability than would have been the case had the injured employee been given the best possible care from the beginning.

Recently a representative of a Carrier's Association, together with the Medical Director of the company, requested an interview with me as the Secretary of the State Medical Society to discuss some of the questions arising from the Compensation Law in New Jersey. They talked of the medical and surgical care of the employees under their coverage and also the payment of physicians' bills.

They stated that their company had seen a light. As a result of keen business analysis they were at last convinced that the best medical and surgical attention given to the employee was the cheapest in the long run. They stated that as a policy physicians' bills would be paid where they were satisfied that the doctors were reputable, reserving to themselves the right to refer bills in question to the committee of our State Medical Society appointed to examine and pass on disputed bills. They stated that most physicians did not make out their bills properly, to render to a carrier; they did not itemize the bills nor did they indicate where prolonged care was necessary or explain the length of time necessary for dressings, etc. For instance, in a burn of the hand, if it were specified that each finger had to be treated and dressed separately, or where very large or numerous areas had to be dressed, it should be so stated and then the Company could see some reason for the extended services and the amount of the bill rendered.

They requested me to furnish them the

names of reputable high grade physicians in the city of Newark, divided into districts, upon whom they might depend to render adequate, first class medical and surgical attention. Their company wished to weed out the incompetent but was in no position to do so without assistance from us. They would welcome the same assistance in other portions of the state.

What shall be my position? Shall I turn the proposition down? Shall I say that organized medicine in New Jersey declines to enter into any arrangement with them because some of the plants they insure employ physicians on contract? Or, shall we put the influence of the State Medical Society behind the movement to clean house and get rid of the incompetent physicians in industrial medicine? These are live issues and burning questions. We cannot straddle the fence; nor can we ride both horses. It is time for the state society to discuss this matter, which means that it should first be discussed in the county societies. See to it that your newly elected delegates come to the meeting in June prepared to take part in the discussion, for the matter will surely be called to the attention of the House of Delegates. We must consider what we are going to do about industrial medicine and contract practice. And please remember that the eyes of the other states are focused on New Jersey.

BUSINESS VERSUS PROFESSIONAL ETHICS

HENRY O. REIK, M.D.,
Atlantic City, N. J.

Before entering upon a discussion of this broad topic, it may be well to establish something in the nature of an operative base from which to work and to which we may attach ourselves in the hope of avoiding a rambling discourse. That may, perhaps, be best accomplished by defining what is meant by the 3 words used in the title. According to the Standard Dictionary, these words should convey the following meanings:

Business is a pursuit or occupation that employs or requires energy, time and thought; an occupation connected with the details of trade or industry.

Profession (as employed here) is an occupation that properly involves a liberal education, and mental rather than manual labor; especially one of the three so-called learned professions—law, medicine and theology.

Ethics comprehends a science or doctrine

of the sources, principles, sanctions and ideals of human conduct; and medical ethics thus embraces the principles of moral right and wrong conduct as expounded by the medical profession.

If we keep within the bounds of these definitions there should be no great difficulty in making a logical comparison of business with profession, so far as ethical conduct is concerned, nor in drawing deductions for establishing an ideal state of affairs in both business and profession, even though business may sometimes take on the form of a profession and each profession necessarily has intermingling elements of business.

It is scarcely necessary, in addressing a medical society, to expatiate upon the fundamental differences between a business and a profession. The physician's very natural broad assumption that there is something superior, something dignified and ennobling, about membership in a profession, something that lifts him to a plane of living higher than that of the tradesman, is not only supported by the dictionary explanation already quoted but is borne out by the recorded history of the ages. It may not be amiss, however, to remind ourselves that as members of a learned and highly honored profession it is our duty at all times to maintain the reputation, the dignity, the ideals and glories of that group to which we have been elected. Of what avail all the labors and all the sacrifices of our respected predecessors, if we fail to carry the torch of learning and the emblems of honor onward and upward? Have we pride in belonging to a brotherhood any member of which can take up his calling in any part of the world and find brethren whose language may be different but whose motives and aims are identical with our own? If so, let us keep ever in mind those standards of conduct that have, during the centuries, raised our profession above the level of business.

Sir William Osler, in *Aequanimitas* and Other Addresses, said: "It is no idle challenge which we physicians throw out to the world when we claim that our mission is of the highest and of the noblest kind, not alone in curing disease but in educating the people in the laws of health, and in preventing the spread of plagues and pestilences, nor can it be gainsaid that of late years our record as a body has been more encouraging in its practical results than those of the other learned professions. * * * Always seek your own interests, make of a high and sacred calling a sordid business, regard your fellow creatures as so many tools of trade, and, if your highest desire is riches, they may be yours; but

you will have bartered away the birthright of a noble heritage, traduced the physician's well deserved title of the Friend of Man, and falsified the best traditions of an ancient and honorable guild. * * * Not that we all live up to the highest ideals, far from it—we are only men. But we have ideals, which mean much, and they are realizable, which means more."

There is, then a recognized difference between business and profession, and that difference rests fundamentally rather more upon the fact that a profession is guided by *ideals* than upon the mere fact that the first occupation embraces labor of manual character and the second consists largely in labor of the mind. In his New Year Greetings to you, the President of the Medical Society of New Jersey spoke of this basic factor supporting our code of ethics. He said: "There is, more or less hidden from view—in, under or behind those conduct rules—a power greater than the written words imply; a force that we conceive of as best expressed in the word *idealism*. Ideals! That is what the ethical code stands for. Idealism! That is the great driving power that is embodied in our profession's code; that has put the true physician in the forefront of civilization's advance guard; that today impels us to work steadily and constantly for the benefit of mankind. It is faith in ideals, adherence to idealism, by a host of medical practitioners that has given us pride in the work of the *physician* and put honor in the title of *doctor*."

The title of this address—Business Vs. Professional Ethics—seems to assume that there is not only a difference between business and profession but a difference also between the ethics of the 2 types of occupation, and that we intended to compare the 2 codes. To facilitate such a comparison and direct the line of discussion, let us ask a series of questions and proceed to consider the answers thereto.

(1) Is there a difference between business ethics and professional ethics; and, if so, in what does this difference consist and to what extent does it account for the recognized differences between a trade and a profession?

(2) Which code is of superior character, measuring each by its possible influence upon the welfare of humanity and the promotion of civilization?

(3) Does civilization, culture, refinement of living—which we take to be the chief aims of living—call for a single code to regulate the conduct of all alike; and, if so, shall business adapt itself to the higher professional

standard, or, shall the medical profession lower its standards to those of commercial organizations?

(4) Is there real danger at the present time that our noble profession may become commercialized?

Answering the first question does not call for any deep philosophic thinking or great amount of forensic skill. It should be sufficient to state a few examples of prevalent business conduct to illustrate the gap between what is generally acceptable in the business world, but that would be almost inconceivable in professional life and routine professional conduct. We could readily find such an example in the recent stock exchange crash, where the accepted business code covered as a legitimate procedure those acts whereby one group of business manipulators cut the throats (almost literally) of their opponents; and did such acts deliberately and cold-bloodedly merely for the acquisition of a few extra ounces of gold. We have witnessed during the past 5 years a determined effort in the business world, and that among the highest financiers, to impose upon those of lesser intelligence, or at least possessed of less opportunity to ascertain the facts, even to the extent of concertedly preaching the doctrine that old standards of honesty and fair dealing had become obsolete and that even the laws of mathematics would have to be changed, or had been suspended, to meet the requirements of commercial interests. *Couéism* may be said to have entered the citadel of capitalism and there pronounced its silly message that fortunes could be acquired by merely pyramiding margins and repeating softly and sweetly, "Every day, in every way, stocks must increase in value". That some uneducated people should have believed that message is not at all surprising, in view of the fact that we hear it said not a small number of prominent physicians and surgeons were duped by it, despite the fact that they knew a similar formula had failed in the realm of medical practice.

It is not necessarily a more glaring, but will possibly be a more effective, example of modern business tactics, that we find in the national oil scandal—the Fall, Doheny, Sinclair affair—that involved a number of other business men of high repute and some government officials. The fortunately short Harding administration was characterized by the most scandalous misconduct in governmental and business affairs that this country has ever known; "scandalous" and "misconduct" being the words we as physicians would naturally employ in describing some of the events of

that period. But, did the business world consider those acts as unethical? It would be difficult to find evidence to support an answer in the positive sense. During the national presidential campaign of 1924, we had many conversations with business men concerning the alleged state of dishonesty in high governmental circles, and when asking if they would continue by their votes to support such conduct, invariably received the answer—"Why should I worry, I'm getting mine". That, for a long time past, has been the American standard in business; that "everything goes" so long as you are not caught, and so long as everybody has an *equal opportunity to be dishonest*.

You may think our criticism of business in general is rather severe and that our application of that criticism is too broad. Let us ask—how many prominent business men have repudiated the sort of business dealing involved in the oil scandal? In so far as we can recall at the moment, only one business man, John D. Rockefeller, Jr., has taken definite action designed to stop such transactions. Mr. Rockefeller, like a modern St. George, courageously attacked the dragon in the form of Mr. Stewart. Was he supported by his business associates? Decidedly, he was not. Mr. Rockefeller defeated Mr. Stewart in the latter's fight for reelection to the Board of Directors of an oil company, but not because his business associates voted against Mr. Stewart; the latter was defeated on a stockholder's vote by virtue of the fact that the voting was by shares of stock and that Mr. Rockefeller controlled the largest number of such shares; the number of *shares of stock voted* was approximately 3 to 1 *against* Mr. Stewart, but the number of individuals voting showed a majority of approximately 3 to 1 *in favor of* Mr. Stewart—and the last named gentleman has the right to claim a personal vindication of his conduct by his business associates.

Further, in this connection, it is not very many weeks since Mr. Sinclair was released from jail, where he had been sent in consequence of his participation in the oil deals, and he was scarcely out of jail before the daily papers reported that his business comrades decided he should be reelected to his old position in the oil world.

Could such things happen within medical professional ranks? We should hate to think so. We believe they could not. We have never yet heard of a physician who had been jailed as an abortionist, for instance, being thereafter elected to the presidency of his county medical society; or to any other high office in the gift of the profession. We may frankly ac-

knowledge that there are some scoundrels registered as members of the medical profession, but the profession has never yet condoned any of their crimes or misdemeanors, and if such men are practicing nefarious procedures, they feel compelled to do so with the utmost secrecy in order to avoid prompt condemnation by their associates and by the medical organizations to which they chance to belong. It is there that we find a very distinctive dividing line between the business and the professional codes of ethics.

As to the second question, if our response to the first is acceptable there can be no doubt about the proper answer to the second. The medical code deals almost entirely with the welfare of humanity, having the interests of the public at heart even in those code sections that are concerned with the relations between members of the profession. Humanity has not benefited, civilization is not promoted, by the trickery and deceit, not to mention graver abuses of moral law, so common to business transactions. There are some business and business-social organizations that have special codes of ethics or rules and regulations that serve in lieu of a code, but we have never seen or heard of such a code that compared favorably with that of the medical profession. We feel justified in saying that no other profession, even, has a code equal to ours. Take the legal profession, for instance; would even a lawyer argue that his code of conduct is superior to that of his physician neighbor? If you have any doubt about the inferiority of business and legal codes of ethics, recall the daily news items from Washington during the past few weeks, emanating from the Senate hearings on the Tariff Bill. Read of Mr. Grundy boasting of his prowess in controlling tariff rates and "shaking down" the big manufacturers for money to run political campaigns in the state of Pennsylvania; and then read of his quick reward by the Governor of that state, in the form of an appointment to be a United States Senator. Read how a lawyer proudly acknowledged acceptance of \$75,000 for promoting certain sugar interests, because of his supposed influence with the President of the United States, based upon the fact that he had at one time been a legal adviser to Mr. Hoover. Have you heard of any condemnation of Mr. Grundy by "big business"? Or any condemnation of that attorney by other lawyers or by any Bar Association? Certainly the influence of those outstanding representatives of business and law has not been to the advantage of public morals.

That this severe arraignment of law stand-

ards is not merely our personal opinion, let us quote from the will of a donor who, 5 years ago, made provision for establishment at Princeton University of a Fellowship in Ethics: "I am moved in this matter by the revelation of ethical principles prevailing among men of high repute in the conduct of great business, by the readiness of men to be satisfied in the standards of conduct in political matters that would be condemned as dishonest if done in private matters, and by the readiness of governments in pursuit of their own ends to commit acts which would be deemed dishonest if done by private individuals in the pursuit of private ends. I have a profound conviction that the world cannot attain the highest possible civilization so long as leading nations fail to condemn and repudiate in practice the idea that might makes right, or fail to recognize that the highest patriotism is consistent with recognition of the brotherhood of man."

Is a single code, applicable to all forms of occupation, desirable? You would probably vote a unanimous "yes" to that question, being already sworn advocates of the highest conduct code in existence, but we doubt receipt of such a response from a group of business men or lawyers unless it were understood in advance that the code should be much less stringent than that voluntarily assumed by all members of the medical profession. Attention might be called to the fact that we have such a common code in the Christian "Golden Rule"; but that scarcely covers the situation, since it is a broad generalization and does not deal with specific details. Furthermore, that rule has been recognized theoretically for many centuries by the majority of business men in all civilized countries—not only Christian countries but equally those under the religious flags of Mahomet and of Confucius—yet, no one would claim that it has served its purpose adequately.

Dr. Follansbee, in an article on ethics in the American Medical Association Bulletin of June 1928, says: "Were all minds equally intelligent, equally analytic and equally judicial, all consciences equally acute and all characters equally strong, that teaching of Jesus Christ would be all the code of ethics that is needed. But because the conditions of existence have become so complex, because no one, however insignificant, can live to himself alone but must be considered as a small unit in a great interrelated group; because not every one has had the advantage of being well born with a long line of character building history and tradition in his forebears, and because there is a general tendency of the

times among all people—from which many of our profession are not free—to consider the letter of the law rather than its spirit, that code of ethics so simply expressed will not answer for practical use. Definite rules and explicit situations must be covered, and such rules must be made and such situations covered in a manner and in language that does not leave any loop-hole for evasion or misunderstanding."

The modern business man shows not the slightest inclination to adopt or even consider any higher code than has been heretofore in vogue in business channels; indeed, there are many competent authorities who believe that business standards are lower today right here in America than in any previous time in our history.

It has been suggested, though the suggestion has never been seriously considered, so far as we know, by any medical society, that the medical code shall be amended and made to conform in some particulars with the business code of today. We are not yet prepared to believe that any considerable number of physicians would vote to lower the established standards under which we practice, but, let us consider that in connection with our fourth question, i. e., is there any real danger at the present time that our profession may become commercialized?

The air is surcharged at the present moment with rumors of unethical conduct on the part of physicians, and the mere statement of that fact brings the blush of shame to those of us who have expressed such great pride in the honor of our professional brethren. That these charges of code violations are frequently made will not be denied by any one at all familiar with the situation, for newspapers and magazines have for several years past repeated the charge in various forms. What are these charges, and are they true? That is what should concern us most deeply, for if they are true with regard to any considerable percentage of our associates, *then there is* grave danger to the welfare of the profession as a whole and even greater danger to the public at large. That there is some basis in fact for these charges can scarcely be denied. One feature of the old code warned physicians to be cautious and skeptical when listening to criticism of physicians by patients speaking of physicians they had previously consulted. We have never forgotten that advice and have many times had occasion to appreciate and to profit by its wisdom. But,

gentlemen, what about the criticism of physicians by physicians? If you would travel about in these United States and hear the things that physicians say about one another, you would have either to agree with David that "all men are liars", or believe that there is at least a modicum of truth in the complaints concerning prevalence of unprofessional conduct.

The charges range all the way from disappearance of the old-fashioned courtesy between members of the profession, to the performance of unnecessary surgical operations purely and simply because there is money to be made in that way. The 2 charges most frequently made, and of the greatest importance, are overcharging of patients for services rendered, and, the division of fees between a surgeon operator and the physician who brought the patient to him for consultation. We single out these complaints involving finance because they constitute the largest number of all complaints made, and because they strike at the very foundation of our ethical structure. Commercialism is, in our opinion, the greatest curse of this age; and here we have the rumor that commercialism has not only entered into but threatens to dominate professional life. Perhaps we could afford to ignore most of the protests about large fees being out of proportion to services rendered, remembering that not only have disgruntled patients from time immemorial made such complaints, but that even Galen himself avowed that some of his confrères constituted a band of robbers and rogues with whom gain was the only motive. There have always been some members of the profession ready to take undue advantage of their opportunities to make money. Fortunately, the percentage of physicians and surgeons guilty of such practices has been small, and their conduct has generally injured themselves more than it has hurt either the public or the profession. We cannot afford, however, to ignore the charges, and now the belief that is becoming prevalent even within the professional ranks, that commercialism threatens to exert a malignant influence upon the profession.

The subject of fee-splitting needs no special description. You all know what is meant by that term, and you know better than we do whether or not it is practiced in this community. If it is not, you should take steps to kill the slander that is involved in these charges against the profession; if it is, you should be ashamed of the fact and should take steps to

clear the professional record by punishing the guilty individuals.

We had, and we have, no intention of making application of this discourse to this county or to any particular district within this state. That fee-splitting does exist in the United States and that the custom has been on the increase during recent years, is another of those statements that cannot be denied. The very fact that the American Medical Association, at its most recent meeting, held in Portland, in June 1929, found it necessary to pass a *special resolution* condemning the practice of fee-splitting and declaring, in effect, that it is one of the "unpardonable sins", is sufficient to prove that the custom is recognized as existing to an alarming extent. At the annual meeting of the Medical Society of New Jersey in 1929, your own Executive Secretary called attention to the increasing number of rumors that fee-splitting is current in this state, and he asked for the appointment of a "fact-finding commission" to investigate the rumor and to dispose of the slander if it should be found to be one, or take steps to correct the evil if it was found existent. The Welfare Committee of the state society has since appointed a special subcommittee to make such an inquiry and we shall await with interest the outcome of that investigation.

That we should condemn fee-splitting, goes without saying. *We would urge*, not only wordy condemnation of the custom, but very definite action against individuals found guilty of such a practice. There has been too much talk and too little action in relation to this matter. We are of peaceful disposition but we recognize such a thing as justifiable wrath, and we remember that the Prince of Peace took part in scourging the money changers from the Temple. The President-Elect of the Pennsylvania State Medical Society, Dr. Ross V. Patterson, said at the December session of the Tristate Medical Conference: "The real problem now is regulation of those engaged in medical practice, the revoking of licenses and the disciplining of irregulars—and the most dangerous irregular of all is, of course, the irregular licensed regular." We expressed our personal feeling about fee-splitters in an editorial in the December Journal, and that need not be enlarged upon at this time. At the moment, what shall be said in general, rather than a specific way, about the evils of commercialism in relation to professional work?

Dr. Miles Porter, in a lecture to the stud-

ents of Indiana University School of Medicine, said: "Sound sentiment and common sense are twin brothers; much closer kin than the materialistic champions of efficiency would have you believe. Sentiment won the battle of Waterloo, and also the World War. Sentiment abolished slavery. Sentiment sounded the death knell of German efficiency, and yet we are today witnessing in the world a recrudescence of materialism which is manifesting itself in medicine as in all other walks of life. The opening paragraph of the 'Principles of Medical Ethics' reads: 'A profession has for its prime object the service it can render humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accordance with its ideals.' The object of the 'principles' of ethics is to teach the doctor what his paramount aim should be, how to achieve it, and how to measure his success. To me, next to the joy one gets from the self-consciousness that he has done good work, the greatest reward he can reap is the esteem of his fellow craftsmen. The real reward in medicine is not in dollars and cents. The ethics of the profession of medicine precludes a large financial reward, that is, large in comparison with the cash rewards of business. Medicine does not need nor want in its ranks those who are activated by such motives. The chief rewards in the practice of medicine come to the individual doctor through the often unspoken devotion of his patients, through the sense of a task done to the best of his ability, and through the knowledge that each day is sure to bring its interesting problems. Perhaps the most lasting reward is the sense he feels of the faith of the people in his profession. This faith in doctors is a wonderful heritage."

May we close with one more quotation from the writings of Sir William Osler. Upon leaving Montreal to take up his professorship at Johns Hopkins University, he said: "After 10 years of hard work I leave this city a rich man, not in this world's goods, for such I have the misfortune—or the good fortune—lightly to esteem, but rich in the goods which neither rust nor moth has been able to corrupt—in treasures of friendship and good fellowship, and in those treasures of widened experience and the fuller knowledge of men and manners which contact with the bright minds in the medical profession insures."

Esthetics

For variety's sake, as well as in recognition of "home talent", we have chosen to devote our "esthetic" space this month to publication of 2 poems contributed by members of this society—Dr. H. L. Harley, of Atlantic City, and Dr. Ralph S. Cone, of Westwood, Bergen County.

A SURGEON TO HIS HANDS

Strong, skilled hands, with slender
Long fingers, whose tender
Touch is anodyne;
Such are these hands of mine.
Hands!
Attention! I command:
At whose call—in what land,
Serve 'til our trek is done,
Swerve not—it is begun;
Stay you the least omission,
Hands—
They called The Christ, Physician.

—H. L. Harley.

THE OLDEN SONG

There is a song; an olden song
With mournfully sweet refrain,
A sad and plaintive symphony,
That soothes life's care and pain.

Sometimes like soft Aeolian chords
I hear it far away,
And then it haunts my soul with dreams
Of the dead yesterday.

I hear its strains on summer nights;
They moan among the trees
When dewy scents from woods and fields
Are borne upon the breeze.

Its music in wild winter's gales
Seems like a human sigh
Breathed in my ear, and then away
It sweeps across the sky.

And I can feel its solemn thrill
In storms upon the deep,
When, as the wind sings in the shrouds,
It lulleth me to sleep.

Thou, too, hast heard this olden song,
Her cradle song to thee,
When mother crooned beside thy crib
Her Heart's own melody.

—Ralph S. Cone.

Economics

USING THE LAWYER TO THAW OUT FROZEN ACCOUNTS

ROBERT R. AURNER, A.M., Ph.D.,

Professor Department of Business Administration,
School of Commerce, University of Wisconsin

(This is the third of Prof. Aurner's articles, published in the Wisconsin Medical Journal, which we have republished in abstract form; the others appearing in our Journal of August 1929 and February 1930.—Ed.)

It must be admitted at once that the policy of leniency is most valuable in the end. Ill-will cuts down the community reputation and has an injurious effect upon the long-run income of either individual or organization. Threatening procedure is seldom worth the candle. It is likely to alienate more prospects than it collects money. It does not square well with medical ethics, nor does it hold fellowship with the humanitarian spirit that hovers over the profession.

And yet there is such a thing as being too lenient.

The ultimate service which the lawyer performs in professional service collection is to persuade the court of justice of the doctor's claim against his patient, and to obtain the aid of the court in enforcing its collection. He is the medium through which the medical man employs the processes of the law to enforce the payment of his claims. His service is purely legal and is of no interest to the doctor. Once the claim has gone to suit it is no longer a collection, and cannot be dealt with as such. The lawyer's duty then is to push the suit for the fee as expeditiously as may be, and with as little loss of the time of the doctor as he can manage; for the doctor must, of course, testify in his own behalf.

The lawyer fills, however, an important useful place in aiding in the collection of the doctor's fees *before going to suit*. It is this side of the lawyer's service that I desire to emphasize.

There is a psychologic factor involved in the handling of a collection account by the lawyer. The average layman, uninitiated in the professional mysteries, stands perhaps just a little in awe of the law, however small respect he may seem to have for legislative enactments. Certain it is that people do not like to have their private affairs dragged into the open and broadcast from the witness stand in a court room, and will go to great lengths

to avoid it, even to paying up the claim. A collection agency has been known to dun a patient for 6 months without tangible results; the same dunning letter, written under an attorney's name and on his stationery, has brought the debtor hurrying into his office to avoid any further contact with the law. Nor did the attorney have to threaten suit to accomplish the result.

One physician has his attorney write his slow-paying patients at their places of business, especially when they work with a number of men. When the delinquent finds letters, bearing an attorney's letterhead, waiting on his desk every morning, where his stenographer and his associates in the office may see them and wonder about them, he usually begins to think about paying his account. About a letter from an attorney there is something arresting that cannot be long ignored. Such letters need not be mandatory in their nature; a simple statement of the legal retainer, and of the claim involved with a suggestion that the debtor call at the office of the attorney and arrange for payment, is usually sufficient. The threat, if any, is implied, but none the less effective.

Another advantage incident to the collection of accounts like these, short of actual suit, is that the lawyer's charges are frequently less than those of a collection service. There are a number of reasons why this is true. Many lawyers are glad to handle for a nominal sum a physician's collections as "feeders". Small items like these are not infrequently productive of larger and more important litigation. This is on the theory that if the doctor has more important legal business he will bring it to the attorney with whom he customarily deals. In addition, doctors are in a better position to throw business to a lawyer than is the average man, not only because of the confidence so deservedly placed in a doctor's opinion, but also because physicians are more often in contact with situations involving legal redress and requiring legal services of a nature that can be rendered only by a lawyer. The doctor, treating the victims of all kinds of accidents, coming in contact with anyone who is injured in mind or body through the carelessness or recklessness of another, may call his attorney's attention to the situation, to the advantage of both patient and attorney.

For these reasons physician's accounts are sought after by lawyers interested in developing a practice; and because they are desirable, such accounts are not infrequently handled at cost to the attorney, or for a nominal sum. An attorney cannot ordinarily realize enough on the time he puts into col-

lecting a doctor's accounts to show a profit for his work, but he is, nevertheless, glad to handle them for the benefit of the good will involved. Incidentally, he is often enabled to benefit the physician by qualifying him as an expert and using his testimony in court. The physician's fee for such work is rather generous, and the loss of time involved very small. Few personal injuries are susceptible of proof without the doctor's testimony. The association between the professions may thus be mutually beneficial.

If the lawyer expects to keep the doctor as a client, *he must collect as much as possible with as little offense to the patient-creditor as possible.* A lawyer realizes that he cannot keep the doctor's legal custom if his vigor in collecting the claims offends the client to the extent of his going to another doctor. This is one of the reasons, of course, why doctors dislike to resort to legal means to collect.

The loss of patients through overzealous collection methods can be avoided by the use of tact and ordinary consideration with a proper admixture of firmness and patience. Such procedure takes time. The doctor's logical step, therefore, when his own facilities are exhausted, is to put his collections into the hands of an attorney able to devote the necessary time to diplomatic means of soliciting payment. Claims of physicians for professional services are peculiarly easy to try in court. No profound knowledge of law is required, simply a familiarity with methods of legal procedure. Moreover, courts are markedly sympathetic to such claims, owing, in part, perhaps, to the bond existing between professional men.

For the reasons just enumerated, claims for doctor's services may advantageously be handled by young attorneys not yet subject to the press of more lucrative legal business. They have sufficient familiarity with legal procedure to handle the case. But more than that, these young men have, from the nature of their status in their profession, something even more important to physicians: plenty of time to handle such cases in a tactful manner. More than that, these young men, anxious to do well and to please, will give the physician's case the energy and close attention it deserves. It is necessary that the doctor make clear at the beginning of the proceedings that tactful, inoffensive means are to be employed, that final legal steps are to be taken only rarely and under no circumstances until the case has been carefully considered, and final permission given to go ahead. Once the lawyer understands these restrictions, he knows how to proceed.

Case Reports

APLASTIC ANEMIA IN A CHILD 4 YEARS OLD

SYDNEY FRANKLIN, M.D.,
Englewood, N. J.

A female child of Polish parentage, aged 4 years, was brought to the Englewood Hospital on November 26, 1927, with the following history. In June of that year, she had an attack of what was called grippe, followed by a pyelitis, which cleared up. On August 28, same year, she had been taken to a physician for pain in her legs and jaundice, and he made a diagnosis of acute infectious cholangitis. No pus was found in the urine. The jaundice disappeared 1½ months later. The physician states there were no other abnormalities, and that he gave her salicylates for her limb pains. On August 28 her weight was 28 lb.; it was 33½ lb. on November 14 when he last saw her. The parents maintained that there had been a progressive pallor and weakness, with occasional limb pains since June.

She was a first baby, normal and easy delivery, breast fed exclusively for 2 months, and on a milk formula, breast and mixed diet, subsequently. Sat up at 6 months and walked at a year. Normal progress of growth and development. At the age of 2 yr. had measles, from which she fully recovered. There have been no other illnesses or injuries.

Chief complaint on admission was general weakness, which had become so severe that she had been in bed continuously for 2 weeks. Pain in the lumbar region of the spine and muscles, extreme pallor. The mucous membranes and conjunctiva were almost white; fairly well nourished and developed; no jaundice, no petechiæ or purpuric spotting. There were a few shotty anterior and posterior cervical glands on the left side; no inguinal nor epitrochlear glands palpable. The abdomen was negative as to pain; no masses felt. Deep tendon and skin reflexes were normal. No ankle clonus, nor plantar extensor reflex. She would not permit extension of the leg, with the thigh flexed, because of pain in back, and resented any pressure on the spine in the lumbar region. It was impossible to make out a localized tenderness here. There was no apparent swelling or curvature of the spine. The back was simply held rigid. Spleen was not palpable; liver not enlarged, and margin distinctly felt at the lower costal border. Eyes and ears were negative; teeth

apparently in good condition. The buccal mucous membrane showed nothing abnormal. The left tonsil was suspicious of a focus of infection. Lungs were negative; heart enlarged ¾ in. beyond left nipple line; sounds weak and murmurs heard at all valve areas. Extremities were negative. Blood count on admission was Hgb. 23%; R.B.C. 800,000; color index 1.27; W.B.C. 21,000; polys 12%; Monos: small 79%, large 9%. Marked central pallor; many poikilocytes; marked anisocytosis; slight basophilic stippling. (Aplastic pernicious anemia).

The following day, 260 c.c. of blood transfused by Unger method. The next day, the blood count was: Hgb. 46%; R.B.C. 2,000,000; color index 1.04; W.B.C. 14,000; polys. 42%; Monos. 58%. The same changes in the character of the red cells, only less marked. Nine days later, the blood count had dropped to the following figures: Hgb. 20%; R.B.C. 780,000; color index 1.17; W.B.C. 11,000; polys 12%; monos 88%. Then 400 c.c. whole blood transfusion was followed by a marked reaction. Separate nose and throat cultures showed staphylococci and streptococci.

X-ray examination showed the heart enlarged in all diameters (11 cm.). Chest, 16½ cm. No apparent thymus shadow. Radiograph of spine showed the following: region of lumbar spine and pelvis, anteroposterior view showed slight lateral curvature in dorsolumbar region to right; oblique and lateral views showed good alignment. The oblique view showed lumbar vertebrae best; fifth was indistinct, and there appeared to be a definite loss of bone substance, but body of the fourth was distinct and clean-cut. Sacrum appeared normal; interspaces even and clear. Nasal sinuses clear. Bone structure in the region of the knees and elbows, normal.

Dr. Schloss saw the child in consultation and considered that she was suffering from an aplastic anemia. He could not account for the pain in the lumbar region of the spine. It was suspected that the child might have Pott's disease; but the Mantoux test was negative, on repeated tests up to 0.5 mgm. of tuberculin. The principal lesion aside from the anemia, apparently existed in the spine, but it was so excruciatingly painful to the patient to be examined, and because of her weak condition, that nothing definite could be made out. Spinal fluid (12 c.c.) obtained under normal pressure; cell count 7 monos; globulin, negative; smears, no organisms present.

Three days following her 400 c.c. blood transfusion, Hgb was 30%; R.B.C. 1,860,-

000; color index 1; W.B.C. 3,800; Polys 31%; Monos 69%. No reticulated red cells present.

From this time, which was 15 days after admission, until 30 days thereafter, her red cell count varied between 1,800,000 and 1,070,000; Hgb. range was between 15% and 30%; W.B.C. never got over 10,000, and the mononuclear cells were between 93% and 82%; platelet count between 106,000 and 110,000. Only occasionally were reticulated and nucleated red cells reported.

During this time, the child seemed to improve clinically. Cardiac murmurs, less pronounced. Less weakness and apparently less blood destruction. She ate better, did not suffer from any pain in her back, except when moved. At this time, there appeared some swelling of the glands of the anterior cervical region on the left side, which were not very tender; and the liver became slightly enlarged and could be felt about 1 in. below the costal margin.

Forty-one days after admission, a third transfusion was given, 260 c.c. whole blood, which scarcely affected her count at all, and 9 days later, she received 300 c.c. more of whole blood. It was apparent that she was rapidly sliding down hill.

The parents insisted on taking her home the following day, and she died about a week later. Just previous to her death a purpura developed.

During the time that she was in the hospital, the urine showed hyaline and granular casts with a normal specific gravity and occasionally was free from albumin and casts. The temperature ranged, throughout the disease, between 99° and 102°, except on several occasions following transfusions. Two separate stool bilirubin dilution tests showed 18,000, which indicated a great destruction, in all probability augmented by the transfusions. Stools were negative for blood, ova, or parasites. Blood cultures were negative, and the Wassermann test was negative.

Treatment. She was kept on a general diet, including liver and a special vegetable diet, selected for its vitamin content. She also received ultraviolet light treatment, and iron, arsenic and dilute hydrochloric acid were tried.

Question. Could there have been a malignancy of the lumbar spine, causing secondary changes in the red bone marrow?

In Lighter Vein

All Set for a Scrap

A man in Atchison, Kansas, can play a ukulele with his toes. This has an advantage, leaving the hands free for self-defense.—Detroit News.

Slave to Appearances

Optimist—"Cheer up, old man. Things aren't as bad as they seem to be."

Pessimist—"No, but they seem to be."

—Vancouver Province.

According to a doctor, singing warms the blood. We have heard some that has made ours positively boil.—The Humorist, (London).

If the women dress to please the men, as has been alleged on numerous occasions, just what particular group are they trying to make happy with the long skirts?—Ohio State Journal.

The employees in a soap factory are forbidden to smoke, we read. Tobacco manufacturers will probably retaliate by ordering their employees not to wash.—The Humorist.

"The symptoms of love," says a Munich doctor, "are indubitable. The eye is blurred, the face becomes pale, the heart palpitates, sleep is irregular, and the sufferer loses weight". Yeah, doc, but good lands! look how the poor simp enjoys it.—Macon Telegraph.

We Overlooked Him.

All in all, this is an age of remarkable talent. We quote: "The shoplifter made his way through a crowd of women shoppers and escaped." When they get around to making the final All-America football list, they ought to remember the unique performance of this bird.—Boston Herald.

Convenient Calliope

In London, recently, a baby gave the alarm for fire and aroused the occupants. A campaign is to be launched urging every householder to install one of these useful little gadgets.—London Opinion.

Wanton Madcap

Captain Orlebar, this British speed demon, who recently flew in that wonderful new plane at the rate of 368 miles an hour, is said to be about the best croquet-player in England. We knew there was a wild streak in him somewhere.—Los Angeles Times.

Negligent Salesmanship

The only reason a great many American families don't own an elephant is that they have never been offered an elephant for a dollar down and easy weekly payments.—Nashville Banner.

Lighthouse Observations

THE ANESTHESIA PROBLEM

There are many argumentative questions in medicine which have the habit of bobbing up periodically for reconsideration and discussion. Such is the one relating to proper choice of anesthesia under the varying conditions of general surgery. From among the many articles on anesthesia that have recently appeared, we select the following by William J. Mayo in the Mayo Clinic Reports (copied from Jour. Indiana Med. Soc. Nov., 1929, p. 489).

"Chloroform was introduced as a general anesthetic by Simpson, of Edinburgh, in 1848. When I began the practice of medicine, it was the anesthetic in general use. There was a feeling in the medical profession, and it may have been well founded, that if a patient was suffering at the time the operation was performed, so that the pain produced a greater effect on the patient's mind than the fear of the operation, chloroform, if given by the drop method on a little gauze frame, was a safe anesthetic. This was considered especially true of obstetric procedures. It was quite noticeable, however, that when chloroform was given for surgical purposes, the most responsible man gave the anesthetic. I was never quite sure whether this was because of his supposedly greater skill or whether it was to satisfy the relations and friends, if a catastrophe occurred, that everything had been done that could be done.

Chloroform was looked on as a special danger to the heart. On one occasion when I supposed that the anesthetist was using ether, 2 patients had failure of respiration from which they nearly died, and it was not until I was operating on the second patient that I noticed the odor coming from the anesthetic was that of chloroform and not ether. Through a mistake the bottle had been filled with chloroform instead of ether. In neither of these cases did the heart show serious reduction in volume or rate.

Ether was used first by Long and Morton, and became the popular anesthetic, but in the early days the A. C. E. mixture was popular. It consisted of 1 part of alcohol, 2 parts of chloroform, and 3 of ether, and was given by the drop method on a little frame.

Eventually ether became the anesthetic of choice, but at times it caused irritation of the bronchial tubes and throat, and usually was followed by nausea and vomiting. For short operations, nitrous oxide was popular, but gave little or no relaxation, and for abdominal work had to be combined with morphin or ether or other anesthetic.

Recent advances in methods of inducing anesthesia have brought in ethylene, a splendid and safe anesthetic, which is much less irritating than ether, but which does not always produce quite so complete relaxation. It can be readily combined with ether, or can be used to follow nitrous oxide, and although it has the disadvantage of being extremely inflammable, in a period of years we have had no accident of any kind from its use. Acetylene has a small field of usefulness, especially for certain operations on the chest.

In those cases in which breathing is more or less interrupted during the administration of any anesthetic, Lundy has demonstrated the great value of carbon dioxide to stimulate respira-

tion. Lundy and McCuskey and their co-workers have found the use of combinations of general anesthetics of various types, especially of ethylene with ether or nitrous oxide, in connection with local anesthetics, to be the procedure of choice in a very considerable number of cases.

In all cases, liberal amounts of oxygen have been found advantageous.

The lungs have nothing to do with inducing anesthesia, so far as sleep and relief from pain are concerned, except as an entry way which permits the inhaled anesthetic substance to pass into the blood stream whence it is carried to the central nervous system. In this process irritation may arise in the lungs, possibly causing serious pulmonary complications.

With the new anesthetics, for instance, the sodium salts of the barbituric acids, and others of that type, we at least have achieved a scientific method of injecting the anesthetic intravenously, thereby relieving the lungs and other organs of certain dangers to which we have become so accustomed as almost to have forgotten the reason for their existence.

The Clinic is indebted to members of the staff, first to Dr. Sistrunk and later to Dr. Balfour, for making careful use of sodium iso-amyl ethyl barbituric acid. This agent is not the perfect anesthetic, but in several hundred cases in which it has been used under the direction of Dr. Lundy and his co-workers, we have had no fatalities that could be traced to the anesthetic.

Our experience with sodium iso-amyl ethyl barbituric acid demonstrates that direct methods of producing anesthesia may soon be expected, which, in connection with approved methods of inducing regional anesthesia, will relieve the patient of unnecessary dangers to unoffending organs. Certainly, as far as sodium iso-amyl ethyl barbituric acid is concerned, the speed with which the patient drops asleep, and the freedom for some hours after operation from all painful sensation, has led many patients who have had unpleasant experiences with general anesthetics, to plead to be operated on under this newer form.

Regional anesthesia by procain has a large and growing field of usefulness, and is very efficient and safe. Spinal anesthesia induced by procain has proved of very great value in operations on those organs which lie below the diaphragm, and this form of anesthesia is the one that should be used in cases of intestinal obstruction, because in this condition, even if the contents of the stomach have been thoroughly removed by tubage previous to giving a general anesthetic, antiperistalsis may occur, regurgitating back into stomach, esophagus and pharynx a quantity of intestinal secretions which may be aspirated into the lungs, causing fatal bronchopneumonia, or even drowning on the operating table.

Spinal anesthesia has the very great advantage in cases of probable intestinal obstruction, that if no true mechanical obstruction exists, gas and perhaps intestinal contents will pass by the rectum within 15 or 20 minutes. Therefore, if gas and intestinal content are not passed after a spinal anesthetic has been administered, mechanical obstruction may be assumed to be present and advantage can be taken of the anesthesia for immediate operation".

Discussing the choice of anesthetics, before the Surgical Section of the Massachusetts Medical Society, Sise and Woodbridge (New England Jour. Med., 201: 506, Sept. 12, 1929) present this summary:

"While there are a multitude of factors which may influence choice of the anesthetic in each case, yet in general the choice is governed by a few broad considerations. Of these, the safety of the patient is paramount.

Of the more commonly used drugs, procain is the least toxic and ether by far the most toxic, ethylene being the least injurious of the inhalation anesthetics.

For abdominal operations, spinal anesthesia is preferred where technical difficulties are anticipated, and field block by procain, reinforced, if necessary, with ethylene for patients in poor condition. In others, gas, ether, regional or spinal anesthesia, may be used, but the choice among these methods will be less definite and will depend upon a variety of factors.

For most operations on the trunk and extremities, either procain, including its intraspinal administration, or one of the gases may be used; ether is rarely indicated. For operations on the anus, rectum, and urinary bladder, regional and spinal anesthesia are preferred because of the deep relaxation they afford.

For operations on the head and neck, interference between anesthetist and surgeon may be avoided by using regional anesthesia or intratracheal ethylene or nitrous oxid, or the more toxic drug ether by pharyngeal, tracheal, or colonic administration. Where the fields of the anesthetist and surgeon need not overlap, either gas or regional anesthesia may be used."

School Health Department

ESSENTIALS IN PREVENTION

AND CONTROL OF COMMUNICABLE DISEASE

Allen G. Ireland, M.D.,

Director of Physical and Health Education, State
Department of Public Instruction,
Trenton, N. J.

These suggestions apply only to the public school. The list is not exhaustive but it includes those items regarded as essential.

(1) Clean, light, properly ventilated, well-equipped (as to sanitary essentials) school buildings.

(2) Immunization available to all pupils.

(3) Immediate exclusion, upon opening of the morning session or the afternoon session in case of part-time schools, of any pupil exhibiting any indications of deviation from normal condition. Coincident with exclusion, notification of the home including a statement as to the reason for exclusion and a recommendation that a physician be consulted at once.

(4) Immediate exclusion of contacts with known cases of communicable disease.

(5) Rules governing readmission to school of pupils excluded because of suspicious signs and symptoms, because of diagnosed communicable disease or because of contact with a known case; and strict compliance with such regulations.

(6) A rule that pupils absent for 3 days or more for unknown cause can not be readmitted to the classroom without a certificate from the school nurse or school physician.

(7) Absolute prohibition of the use of common drinking cup, towel, comb, or hair brush.

(8) Persistent and intelligent efforts on the part of the teacher to train pupils to refrain from putting fingers, pencils, penholders, etc., into the mouth, and from biting the nails.

(9) Ventilating and flooding the room with sunlight at every opportunity—recess, passing periods, noon time.

(10) Teaching pupils in a manner to strengthen habits and attitudes with regard to covering the nose and mouth with a handkerchief or turning the head away from others when necessary to cough or sneeze.

(11) Prohibiting interchange of articles and utensils such as pencils, erasers, paint brushes, penholders, caps, handkerchiefs, and other pieces of clothing; and abolishing all supplies of small articles for common use.

(12) Prohibiting the "swapping of bites" or the giving away of articles of food.

(13) Maintaining a school or room organization whereby each pupil is assigned a seat and desk for regular and individual use throughout the term or year. This means that pupils should not be permitted to choose or to use seats at random.

(14) A daily systematic, but interesting, health inspection conducted by the teacher immediately upon opening of the morning session.

(15) Cloakrooms or clothing closets or lockers that are light and ventilated and in which the hooks are far enough apart to permit free circulation of air around and between the garments.

(16) Provisions for drying the clothing of pupils or, lacking such measures, regulations calling for exclusion of the pupil who is too wet to remain in school.

(17) Requirements concerning washing of the hands after going to the toilet and before eating.

(18) Prohibiting playing of games or dances in which the pupils grasp hands, when a communicable skin disease is prevalent.

(19) Special measures of inspection in time of epidemic.

(20) Keeping schools open in time of epidemic except when the number of pupils and teachers absent is so great that organization and conduct of the school is paralyzed. Rarely is it necessary to close schools.

(21) Destroying papers, small articles, and old worn books taken from the desk of a pupil known to have a communicable disease. New or valuable books can be withdrawn from use and daily exposed to sunshine or dry air for a long period.

(22) Occasionally, depending upon the disease, virulency, and number of cases, it is good practice to wash with a disinfecting solution all desk tops last used by the ill pupils, all door knobs, handrails, and water faucets; this is only necessary in severe epidemics and with certain diseases, but should then be carried out daily.

(23) Wooden toilet seats should be revarnished annually to prevent a rough creviced surface in which dirt, skin scales, fungi and bacteria may accumulate.

(24) Great care should be the constant rule with respect to washing of silver and glasses in the school kitchen or lunchroom.

(25) All known cases, contacts, and excluded suspected cases should be reported daily to the health officer of the community.

(26) The health officer of the community should notify daily the school health workers, or the school executive office, of all known cases of communicable disease in the community.

(27) The 2 rules immediately above should also be put into effect for contiguous townships, boroughs, or municipalities from which pupils are taken.

(28) The superintendent of schools, supervising principal, and each building principal should establish a system of reports whereby he will be accurately informed daily of the health conditions in the system or the school. He should be able to tell before noon of each day, how many pupils are absent because of illness, how many were excluded and the cause in each case, the schools and the rooms. It is frequently of great value to have these figures, since with them the beginning of an epidemic can be detected early, the source of the disease can be more readily determined, and the teachers can be warned.

(29) School authorities should religiously observe the code and rulings of local and state health departments.

(30) It is well for the school executive to have prepared in advance a plan of mobilization of all forces and of attack upon an epidemic should one threaten or suddenly arise among the school children.

(31) Care should be exercised with regard to publicity given prevailing health conditions lest fear and hysteria be engendered. Teachers should be warned against talking too much about disease and germs and against showing concern over conditions. Nervous and morbidly introspective children are prone to emotional shock under conditions of stress the facts of which are little understood by them. Sometimes such children develop phobias and obsessions from which they never escape.

(32) Boards of Education should consistently adhere to the accepted practice of keeping schools open and refuse to be influenced by the demands of parents to close schools.

(33) Fumigation should be resorted to only when it seems expedient to satisfy the popular opinion; it should be used very rarely.

(34) Immediately upon exclusion of a pupil, the teacher of a brother or sister of the excluded pupil should be notified. Immediate exclusion of all relatives residing in a common home is strongly advised. It is well for the principal of a school to have a file for showing the location of all brothers and sisters of all pupils in his building.

Communications

BOARD OF MEDICAL EXAMINERS

(Letter from the Secretary, Dr. Charles B. Kelley, January 22, 1930.)

Am sending herewith a list of recent prosecutions:

November 8, 1929, Arthur Carl Heintze, of Camden, a licensed chiropractor was found guilty in the Camden District Court of practicing medicine without a license. The evidence showed that Heintze exceeded his license by giving electrotherapeutic treatments.

November 27, 1929, Albert E. Lariviere, Manager of the Chief Two Moon Herb Company on the

Boardwalk, Atlantic City, pleaded guilty in the Atlantic City District Court to a charge of practicing medicine without a license.

November 27, 1929, Frieda Korte, a Naturopath located in the Hotel President, Atlantic City, was convicted in the Atlantic City District Court on a second charge of practicing medicine without a license. She pleaded guilty to the same charge on July 26, 1927.

November 27, 1929, Thomas S. Chew, an unlicensed Neuropath of Pleasantville, New Jersey, pleaded guilty in the Atlantic City District Court to a charge of practicing medicine without a license.

November 27, 1929, Gustave B. Levi, druggist of Atlantic City, was found guilty of practicing medicine without a license.

December 4, 1929, Ellsworth Pierce, a Naturopath of Bridgeton and Ocean City, pleaded guilty in the Common Pleas Court of Cape May County to a charge of practicing medicine without a license. This was the third time that Mr. Pierce had been prosecuted. He was first convicted in 1927, in the Common Pleas Court of Cumberland County, continued his practice and was again arrested on March 23, 1929. On July 16, 1929, he pleaded guilty to the charge in the Common Pleas Court of Cumberland County, and again continued his practice at Ocean City.

December 4, 1929, Nachman Diamond, a Spectro-Chrome Therapist of Wildwood, was found guilty in the Common Pleas Court of Cape May County, of practicing medicine without a license.

December 18, 1929, Israel Shmid, a Naturopath of Warrenton, was found guilty of practicing medicine without a license. On failure to pay the penalty, he was sent to jail for 5 days by the Judge of the Somerville District Court.

January 6, 1930, Christina Tolomea, an unlicensed midwife of Forrest Grove, was found guilty by the Common Pleas Court of Gloucester County, of practicing midwifery without a license. This was the second time that Mrs. Tolomea was convicted.

January 7, 1930, Victor Stave, a foot specialist of Bayonne, was found guilty by the First District Court of Jersey City, of practicing medicine without a license.

January 7, 1930, "Prof" Daniel Webster, "The White Medical Man and Herbalist", of Hoboken, pleaded guilty in the First District Court of Jersey City to a charge of practicing medicine without a license.

January 21, 1930, Vasa Zlata, who advertised "Rhumatism relieved with Natural Elements and Mineral Mud Application produced and practiced only by V. Zlata", of Linden, was found guilty, in the Elizabeth District Court, of practicing medicine without a license.

January 21, 1930, Franklin B. Ingersoll, a licensed osteopath of Westfield, pleaded guilty in the Elizabeth District Court to a charge of practicing medicine without a license.

The State Board of Medical Examiners of New Jersey on September 19, 1929, revoked the license to practice medicine and surgery of Israel E. Rudman.

Public Relations

PRACTICAL FIRST AID

(The following editorial from the New York Times of Jan. 17, 1930, is worthy of attention, for several reasons. In the first place, because it bears upon the employment of physicians in industrial establishments and upon the consequent question of "contract practice"—a question that is now seriously engaging the attention of some county medical societies. Secondly, because it shows the importance—yes, the necessity—of our preparing to meet a situation growing out of our own recommendations; for the profession has taught industrial concerns that it is their duty to safeguard the physical welfare and general health of employees. Thirdly, because it raises a new question; i.e., how shall shop and factory workers be taught the rudiments of hygiene and first aid in emergencies? If, as the experience reported seems to show, such teaching of the workers can be most effectively done by one of their own group, then, the medical profession must see to it that such selected lay teachers are properly instructed in those subjects; and that seems to call for endorsement of the employment of qualified physicians by industrial plants and the coincident approval of contract practice, of that kind at least.—Editor.)

Factories of all kinds, large and small, and all industrial plants employing more than a few hundred workers are interested in maintaining their forces in good physical condition. Accident prevention, first aid, general supervision of health are parts of the program in a well-managed industry. With the best intentions, employers are sometimes too vague in the execution of plans for health work. They engage a physician and give him a staff and office, and perhaps a hospital room, and thus emergencies are taken care of. But the machinery of the medical department can be much more widely used.

In The Red Cross Courier is an account of one phase of such a possibility for increased usefulness. Dr. D. L. Lynch, medical director of the New England Telephone and Telegraph Company, gives the results of his 10 years of experience there in first-aid work. He has tried 2 methods of instruction, but the first, through physicians, was abandoned early in favor of lay instruction. His charges number 21,000 men and women. Telephone men work alone or in small groups. He could not engage enough assistants to give them all a first-aid course in a reasonable length of time. Neither could he permit accidents to become more numerous and more serious through lack of instruction. Besides, if he had employed doctors, he would have had to let them go at the end of the course, and first-aid work needs to be continued from month to month and year to year.

He got about among the men himself and selected in every group 1 who showed in some way that he had qualities of leadership. His choice had to be a man who was well thought of by the others, who was capable of understanding and explaining first-aid work and who was genuinely eager to keep his group or district free from accidents. No doctor had been able to get at the men as well as these lay instructors did. If the men did not understand what the

doctor was talking about, they would not ask him to explain more simply. But they did not hesitate to interrupt the lay instructor, to make him back up his statements with good authority, to point out unsafe working conditions and condemn them. On the other hand, he was more free with them than the doctor could be. He called them by their first names, knew how to persuade the fellow who says he "doesn't need first-aid training" and coaxed the clumsy and embarrassed to care for a wound or wind a bandage. He knows far better than the doctor what types of injury are most frequent in his industry, and he emphasizes the telling factors in accident prevention and first aid.

Lay instructors are also valuable in the contact they maintain between executives and workers. They are under the supervision of the medical director, who readily accepts confidence about special cases. All kinds of difficulties may be prevented by their recognition at an early stage. The medical director who makes it his business to train and follow up his lay assistants is an invaluable friend to the men and an asset to the company.

MEDICINE'S SELF-CRITICISM IS A HEALTHFUL TENDENCY

(Editorial in Newark Evening News, Jan. 10, 1930.)

Coming from within the profession, the criticism of some phases of medical and hospital practice embodied in the Annual Report of the New York Academy of Medicine is impressive. It is made more so by reason of its being by no means the first example of a growing consciousness in organized medicine and surgery that "all is not well with the medical profession."

The report makes four counts in its indictment; 3 are launched against doctors and surgeons—that there is overcharging of patients who cannot afford to pay the fees exacted; that some physicians court and obtain publicity calculated to impress the public with their special abilities, and that there is splitting of fees between some specialists and some general practitioners. The fourth count is against hospital practice and management. Some hospitals are accused of lax organization and administration, including the charge that unsupervised and unnecessary operations are performed in them by inadequately equipped physicians.

It is a healthy sign this sort of thing is becoming the focus of frequent attention from such bodies. The rules promulgated by the Johns Hopkins Hospital, the formation of a national committee to study such questions, the recent strictures from the American College of Surgeons, the innovations adopted on a large scale by the Massachusetts General Hospital and the movement to build an endowed hospital for the moderately circumstanced in New York—all these are part of the picture.

No profession needs to be more alive to its social obligations than medicine. It is fair to add that, by and large, it is generally so. Correction of lapses from its standards is a duty of the profession itself, and current indications are that it recognizes that duty.

BILL FIGHTS CURB ON MEDICAL LIQUOR

(N. Y. Times, Jan. 13, 1930.)

State Senator John A. Hastings of Brooklyn announced yesterday that he would introduce in the Senate a bill to amend the medical practice act to permit physicians to prescribe liquors and wines without limitation as to the quantity or restriction as to time. He said his aim was to emancipate the medical profession from unreasonable government interference and repression. If the courts hold such an amendment unconstitutional, he said, he will sponsor legislation authorizing the State to engage in the manufacture of alcohol as a drug and permit its distribution through licensed physicians.

The proposed bill has the approval, Mr. Hastings said, of prominent doctors, among them:

Samuel W. Lambert, former president of the New York Academy of Medicine and president of the Association for Preservation of Constitutional Rights.

T. C. Chalmers, former president of the Society for Medical Jurisprudence and the Greater New York Medical Society.

Warren Coleman, Fellow of the American College of Physicians.

The bill is based, according to Mr. Hastings, on the principle sustained by the United States Supreme Court that "obviously direct control of medical practice in the State is beyond the powers of the Federal Government."

SEES USURPATION OF RIGHTS

In a statement Mr. Hastings said:

"The Federal statute limiting the physicians to the prescription of not more than one pint of spirituous liquors in 10 days to a patient, whose condition in the judgment of his attending physician may require more, is a usurpation of and an interference with the State's right to protect the health and lives of its inhabitants, the preservation of which is the one great justification for the existence and maintenance of organized State government.

The Federal statute limiting a physician to 100 authorized liquor prescriptions in 90 days is an unfair and unjustified restriction upon his professional obligations where he may require the use of a greater number in that period of time.

The Federal statute in so far as its restrictions affect the practice of medicine, either hinders the physician in the proper treatment of his patients or makes of him a criminal in the interest of the health or life entrusted to his professional care.

The Federal restriction of the prescription of liquor as medicine by licensed physicians is an unjustified and inexcusable aspersion upon the professional integrity and honesty of the medical profession in this state.

It constitutes, also, an unjustified and unwarranted encroachment upon the State's right and power to regulate the practice of medicine and to provide punishment for those, licensed and authorized to engage in the healing arts, who have culpably violated the ethics of Hippocrates.

The regulation of the practice of medicine is purely an internal affair and the power to regulate it, as such, is inherent in the State of New York."

Mr. Hastings made public a letter from Dr. Lambert in which the latter said the good-will of the whole medical profession and its best wishes for success would follow the Senator in this "new fight for the correction of an evil".

Dr. Lambert in praising the effort to amend the law wrote in part: "It is a stimulus to amend the effort in this direction to discover that a Senator of the State of New York has the courage of his conviction" to take up this important question in medical practice and to endeavor to enlist the power of the Empire State to secure relief from the unjust, even if legal, prohibitions which now hamper the physician in the proper care of many cases of illness except he ask his patient to resort to subterfuge, to the patronage of a bootlegger or to the kindness of some friend who may be the happy possessor of a pre-Volstead cellar."

3 GROUPS PLAN WAR ON RADIO "QUACKS"

The first definite steps to end advertising of "quack" medical remedies and appliances over the radio were taken at 3 public hearings recently in the offices of Health Commissioner Wynne. Dr. Wynne presided at each hearing.

The most definite move was on the part of about 40 radio broadcasters, who decided that Dr. Wynne should select a committee of public health officials to provide a plan whereby the broadcasters could obtain explicit information quickly on proposed programs of a medical nature. This committee, Dr. Wynne said, would report in about 2 weeks to another meeting of the radio broadcasters.

Similar action was taken by a conference of business associations and other interested parties. They decided to report again in 2 weeks to offer amendments to the code of ethics of the National Association of Broadcasters as well as other suggestions.

TO PROVIDE FREE TALKS

The third hearing was of 4 representatives of the medical profession in the Greater New York area. They agreed that public health officials should form the advisory committee to the broadcasters, and that provisions for public health talks over the radio be made for the broadcasters free of charge.

The only opposition offered to the plan of an advisory medical committee was by D. E. Minard, representing stations WAAT and WODA. Mr. Minard held that a code of ethics was fruitless. He insisted that the broadcasters should not be expected to use the police power; that if a remedy or device was not illegal it could be broadcast. He said that the medical profession has fought over allopaths, chiropractors and osteopaths and would therefore, through prejudice, refuse to approve programs by such bodies.

Dr. S. N. Baruch, representing WBNY and the United Broadcasting System, composed of 165 smaller stations, agreed with Dr. Wynne that action to alleviate the present situation was needed and argued with Mr. Minard that the broadcasters had a moral obligation as well as a legal one.

Although the American Bureau of Chiropractic had addressed a letter dated January 2 to Dr. Wynne, asking representation on any body which might be formed for remedial purposes, there was no chiropractic representative at the hearings on that day. The letter to Dr. Wynne was signed by William H. Werner, president of the bureau, and said that while not agreeing with the medical profession in practice, there was agreement in condemning "radio fakers".

Representing the large stations at this meeting John W. Elwood of WEAJ and WJZ expressed the consensus of the companies of his class present when he decried the advertising of any patent

or device concerning which there could be the slightest doubt.

Representing the business organizations and others at the first meeting were:

Adelaide L. Finch, of the Service Bureau of the National Association of Broadcasters.

Rolf H. Keilland, attorney in charge of the New York branch of the Federal Trade Commission.

Ray Clayberger, for the American Association of Advertising Agencies.

G. Lydecker, of the National Better Business Bureau.

Arthur Batcheller, of the Department of Commerce and radio supervisor for the New York district.

Dr. Harold Rypins, Secretary of the State Board of Medical Examiners.

Sol Ullman, State Deputy Attorney General.

At the meeting of physicians were:

Dr. Lindsey Williams, of the New York Academy of Medicine.

Dr. G. W. Kosmak, president of the New York County Medical Society.

Dr. C. R. Kingsley, of the Richmond County Medical Society.

Dr. A. N. Thomson, of the Kings County Medical Society.

Current Events

A FURTHER REPORT OF STATEWIDE ANTI-DIPHTHERIA CAMPAIGN

Read before the New Jersey Public Health and Sanitary Association December, 1929,

Frank J. Osborne

East Orange, N. J.

Those of you who were present at the annual meeting of the Association a year ago will recall that at that time the State Diphtheria Campaign launched by Governor Moore, in 1927, had but laid the foundation for its work. Literature for distribution had been printed, a film on the subject secured, lectures for various types of audiences prepared, a representative medical man as chairman selected for each of the 21 counties, a handbook of instructions for their use in organizing committees sent out, and, finally, a finance committee appointed for the purpose of raising the necessary funds to promote an educational campaign.

Those who attended the Atlantic City meeting of the Health Officers' Association last spring were told that additional progress had been made up to that time through newspaper publicity, the display of 500 large billboard posters throughout the state, articles for representative bulletins of women's organizations, and a special talk broadcast over WOR under the auspices of the State Federation of Women's Clubs. It was observed at that time that the campaign was beginning to show tangible results, due not only to the efforts of this special committee but to the lectures and other practical help given by representatives of the State Medical Society and the continued and increased activity of the Bureau of Local Health Administration of the State Health Department. Insurance companies, too, had added momentum to the movement, and reports since then prepared by the State Department of Health indicates that at least 125,000 children were immunized in pub-

lic clinics up to January 1, 1929, which was about the same number treated throughout the state during the previous 1 years, it was estimated that up to June of this year at least 275,000 persons, largely school children, had received toxin-antitoxin, this having been done in approximately one-half the cities, boroughs, and townships of the state.

In preparation for this further report, each county chairman was asked to submit information for his district covering the school year 1928-29. If complete, this would have brought the record up to date, but, as always happens, full reports were not had from all the counties and many gaps appear among those received; 12 of the 21 counties transmitted more or less complete information, the essential facts of which were as follows:

Of the 273 municipalities contained in these 12 counties, 131 local chairmen were appointed, the greatest number, 60 out of 72 communities, in Bergen. Middlesex, however, reported 11 chairmen out of 12 towns and I believe Monmouth, through the "Association for Social Service", is organized for local effort in its whole 46 municipalities. These 12 counties reported 318,800 pieces of literature distributed; films shown 259 times to a total of 126,600 persons; 387 news articles published; 69 speakers for 258 talks given before a combined audience of 53,465. When it is realized that this effort is purely voluntary and that, aside from the meager supplies furnished from state headquarters, funds for carrying out these campaigns were raised locally, we cannot but be impressed with the amount of time and labor put forth to accomplish such results.

The individual items which bulk largest, and the counties responsible for them, were as follows: Over 192,000 pieces of literature distributed in Hudson County; 84,000 in Bergen; 75 film showings in Bergen County, 60 in Hudson; 40,000 persons saw the films in Bergen and in Middlesex Counties; 200 news articles were published in Monmouth; 87 lectures in Bergen and about 60 in Monmouth; 20,000 people reached by 87 lectures in Bergen and over 25,000 in Hudson. While these activities are most interesting and represent the fundamental background upon which later immunization programs were built, the results of this preliminary publicity are best shown by the number of children actually immunized. The questionnaire asked for the number who had received 3 inoculations of toxoid or toxin-antitoxin. Following is the record as received from 9 counties reporting on this item:

Cape May, 1802; Cumberland, 3277; Gloucester, 1200; Hudson, 44,441; Monmouth, 14,300; Somerset, 1499; Union, 15,914; Warren, 2576; and Bergen an approximation, which apparently has not yet been audited, of about 15,000, or a grand total of 99,000.

Along with this series of questions, information was sought as to whether or not those physicians who had served as county chairmen during the past year would continue. Some replacements have been made and the complete list at present consists of the following physicians:

Bergen County, Joseph R. Morrow, Isolation Hospital, Oradell.

Burlington County, Daniel F. Remer, Mt. Holly.

Cape May County, A. C. Crowe, Ocean City.

Cumberland County, Leslie E. Myatt, Bridgeton.

Gloucester County, L. Warner Knight, Pitman.

Hudson County, Howard S. Forman, Jersey City.

Hunterdon County, A. J. Coleman, Clinton.
Middlesex County, John H. Howland, New Brunswick.

Monmouth County, Harvey S. Brown, Freehold.
Morris County, William F. Costello, Dover.
Passaic County, John Ryan, Passaic.
Salem County, David W. Green, Salem.
Somerset County, Lancelot Ely, Somerville.
Sussex County, Blase Cole, Newton.
Union County, Arthur Stern, Elizabeth.
Warren County, G. Homer Bloom, Phillipsburg.

Drs. S. Salasin, C. V. Craster and Frederick N. Bunnell of Atlantic, Essex and Ocean Counties, respectively, have asked to be replaced. We are requesting Dr. Salasin to continue as chairman for Atlantic City and Dr. Craster for Newark, feeling that nobody is so well fitted for the work in those cities as are they. Similarly, we are going to ask Dr. Fell to serve as chairman for the City of Trenton and shall attempt to find others to head up the organization in these 3 counties outside these principal cities. In Camden County Dr. Thomas B. Lee has suggested Dr. Thomas K. Lewis in his place and Dr. Bunnell recommends Dr. Adolph Towbin, of Lakewood, as chairman for Ocean County. When these adjustments have been made, the organization will again be complete so far as county chairmen is concerned.

As has been said, most of the immunization work so far done, at least that for which records are available, has been carried out in the schools and it is the opinion of the Executive Council of the State Committee that the momentum so far given the movement will suffice to project it into the school systems in those districts not yet reached. Nobody can say that there is now any great lack of information about the value of this protection, its simplicity and effectiveness; and while we have no accurate knowledge of the exact percentage even of school children that have been done, we can probably feel that this committee has served its principal function in that direction and that so far as the school problem is concerned it can be left to shift for itself. In the reports received, Hunterdon states that 77% of the children in that county have been offered this treatment and Burlington sets its figure at 75%. We constantly hear of new towns being inspired to activity against this disease, either by the aggressive action of some interested individual or group, or by that most salient of all excitors—fear. For instance, within the past 2 weeks, we have learned that the town of Newton, in Sussex County, has finally seen the light. The health officer of that town has been in communication with the state organization and has been supplied with educational material for carrying on an active campaign. This followed a meeting at which Dr. Morrison addressed the County Medical Society on this subject and pointed out the backwardness of this town with regard to immunization. Still more recently the town of Nutley has begun to function. We understand that up to the time when a real diphtheria scare permeated this thriving metropolis the health officer had received but little encouragement from the school authorities for the institution of this modern method of disease prevention. When an unusual prevalence of diphtheria developed, however, they were most anxious to meet his suggestions and I believe the work is even now under way in that town. This, I think, covers practically all of Essex County with the exception of Millburn and Livingston, the latter a rural dis-

trict, the other a small village. A recent circular letter sent to all school authorities in the state by Dr. Allen G. Ireland, Director of Physical and Health Education of the State Department of Education, will doubtless result in similar action from other schools. And so the committee feels that this part of the program may, as said before, be allowed to continue of its own volition while the state campaign turns its attention more seriously to the protection of the child of pre-school age.

The importance of this disease to the pre-school child needs no repetition to this audience. You all know that more than 50% of the cases of diphtheria occur among those under 5 years of age and that somewhere between 65% and 90% of the mortality occurs in this group. Deaths from diphtheria appear to pile up around the second and third year of life and, therefore, if the disease is ever to be adequately and completely controlled, it must be done by initiating these protective measures before, rather than after, the child reaches school. With this thought in mind, a special conference on the subject was held by the Executive Council last spring with a complete representation of the officers of the State Medical Society and Dr. Julius Levy, Chief of the Bureau of Child Hygiene, present. The trend of the discussion was directed toward the most feasible method of reaching the unorganized pre-school group and it was conceded that not only was this the most important part of the anti-diphtheria campaign but that for success it required 2 educational campaigns, one directed to physicians and the other to the parents of children. It was felt that it was entirely impracticable and even undesirable to attempt to protect all of these children through public clinics. Not only would it require a tremendous organization to do this but a continual system of annual follow-up, whereas, if physicians themselves would accept the responsibility the parents would very likely prefer this method and eventually make as general use of it as is now done in vaccination against smallpox. It was hoped that by a close cooperation between organized health services, both official and volunteer, working with the organized medical profession, this problem might be met and worked out with a fair degree of success and to this end Dr. J. Bennett Morrison, Recording Secretary of the State Medical Society, agreed to present the committee's point of view to the county societies during the year and has already reached about one-third of them. In these talks, Dr. Morrison is telling medical men throughout the state that they are being relied upon by the State Campaign Committee to perform these services; that there is still a large unprotected body of children in the state which the demands of public health require be immunized; and that unless the organized profession will undertake to do this for fees within the range of the ordinary family, some other method will have to be resorted to. He is also making known to them the substance of the following resolution which was unanimously adopted at the meeting for the discussion last June:

"It is the sense of this committee that, preferentially, diphtheria immunization should be done by the family physician, but where the establishment of clinics becomes necessary to secure immunization in any community, an effort be made to carry on such work by the County-Antidiphtheria Com-

mittee in coöperation with the County Medical Society".

Specifically Dr. Morrison is recommending that a standard fee of \$6 or \$8 be set for the 3 inoculations and is also suggesting that the county chairmen of the diphtheria committee be used as key-men for the setting up of any necessary clinics under the joint auspices just referred to. This will make it possible for 2 or 3 men in the smaller towns to cover a district and to either hold these clinics in their own offices or arrange for conducting them at some public building at a convenient time. With this work going forward in the Medical Society, the principal task of the Diphtheria Committee for this Fall and Winter is the preparation of educational material for wide distribution to parents. The slogan upon which this year's work is to be based might well be: "The diphtheria campaign moves from the clinic to the doctor's office." It is hoped that funds may be added to those already collected by the committee selected by Mrs. Percy Ingalls for this purpose so that we may again approach the Outdoor Advertising Association with a proposition of donating space for the display of 500 new billboard posters. It is hoped that one of the large insurance companies can be persuaded to make a new diphtheria film for our use, stressing the treatment of diphtheria by the private physician; and a circular of this same tenor should be distributed through the doctors' offices throughout the state; and it is hoped that a thorough car-card campaign through trolleys and buses may be carried out.

This new organization, to be successful, must set up additional machinery. It is not enough to tell the Medical Society that they are expected to do this work or to tell the parents of children that it is essential that they take their children to the doctor for protection. This has been done constantly for the past 10-12 years with very little result. What is now necessary is the working out of a reference system which will pick up the child at 6-12 months of age, learn who the family physician is, and see that the child and the doctor get together. This can only be done by a carefully worked out follow-up system by letter, telephone, personal conference by nurses and other family visitors and, after every reasonable effort in this direction has been expended, there must be a mop-up squad at the end of the trail to organize and man clinics for the immunization of those who have been missed by the more approved method.

This would be a far simpler task if the attitude of the medical man toward a more aggressive attempt to serve his clientele could be brought about. After all, the time appears approaching when the general knowledge of public health through the community as a whole will have prepared his clients to demand such protection of their family medical adviser. I cannot believe from the evidence at hand where doctors, particularly pediatricians, make a practice of keeping their families informed and of suggesting when revisits should be made and of performing those preventive medicine procedures which common sense as well as good medicine demand, that there would be any resentment on the part of the public to an extension of this service by the ordinary practicing physician. The difficulty seems to be in the attitude of mind of the medical man himself, and if he can be made to see that he is urging additional business for himself but is actually, in many cases, forestalling the need

for his curative art by preventing disease, he might become more directly interested in urging these public health measures. Certainly, from the sociologic point of view, a physician might well invite ill-conceived criticism from some thoughtless colleague or patient rather than lay himself open, as he very well may, to actual condemnation by his patients for failing to warn them of possible danger and protecting them from it.

This campaign now enters upon its third phase. The first was devoted almost entirely to preparation and the carrying on of an educational campaign; the second to the promotion of the immunization of the school child; and now we are faced with the more difficult but all important subject of protecting the pre-school child. We ask that you all stand by and lend a hand in order that New Jersey may keep pace with the notable progress being made in this field by other states.

PUBLIC HEALTH AND SANITARY ASSOCIATION

Reported by Charles J. Merrell

The Fifty-fifth Annual Meeting of the New Jersey Public Health and Sanitary Association was held in the Monterey Hotel, Asbury Park, December 6-7, 1929. While the meeting was not as well attended as usual, the program was interesting and from plans proposed it was evident that the members intend to take a more active part in the promotion of public health.

The meeting was called to order by Dr. Samuel L. Salasin, of Atlantic City, Chairman of the Executive Committee, who introduced the President, Mr. B. H. Obert, Health Officer of Asbury Park.

Hon. C. E. F. Hetrick, Mayor of Asbury Park, who was scheduled to make an address of welcome, was unable to be present and sent, as his representative, Mr. Thomas F. Burley, Executive Secretary of the Asbury Park Chamber of Commerce, who welcomed the members to the city and expressed the hope that they would come again.

The first paper on the program, "Mosquito Control", was read by Dr. Thomas J. Headlee, State entomologist, New Brunswick, N. J. Discussion was opened by James E. Brooks, C. E., of Glen Ridge. Dr. Headlee reviewed the history of antimosquito work in New Jersey and gave an interesting account of what has thus far been accomplished.

The first paper at the evening session was read by the President, Mr. B. H. Obert; the subject being "Some Public Health Aspects of the Dispensing of Foods and Beverages", following which a two reel film, entitled "Drinking Health", was shown.

The members were much interested in the paper on the subject of "Mouth Infection", which was read by Dr. Henry A. Cotton, Medical Director of the New Jersey State Hospital, Trenton. General discussion was opened by Dr. Ferdearle J. Fischer, Resident Dentist, New Jersey State Hospital, Trenton.

Mr. Frank J. Osborne, Health Officer of East Orange and Chairman of the State Antidiphtheria Campaign, gave a further report of progress regarding that campaign (published in full in this Journal).

The last paper of the evening session—"Old

Age Pensions"—was read by Abraham Epstein, Executive Secretary of the American Association for Old Age Security, New York City.

A somewhat novel feature was introduced at the Saturday morning session, in the presentation of a playlet entitled "The Nurse's Part in a Community Program" as demonstrated in 5 short scenes by Miss Evelyn T. Walker, Director of Public Health, Monmouth County Organization for Social Service, Inc., and her associates. Each of the scenes was enacted in 8 minutes. In the first scene a Columbia student was introduced, the object of her visit to Monmouth County being to learn about the work. Each service was then explained to the student, giving an opportunity for questions and answers, a plan which was enlightening to the audience and brought in the various branches of public health nursing, such as preschool, prenatal, etc. A novel note was added to the usual demonstration by carrying on telephone conversations in the office scene with various members of the conference, who replied from the floor to questions directly relating to inter-relationship of nurses, doctors and health officers.

A paper on "Outdoor Public Bathing Places" was read by Mr. I. R. Riker, Senior Sanitary Engineer of the Bureau of Engineering of the New Jersey State Department of Health. The discussion on this subject was opened by Mr. Stephen De M. Gage, Chief Chemist and Sanitary Engineer of the Rhode Island State Board of Health.

At the business session, which followed the regular program on Saturday morning, it was voted that the Association appropriate the sum of \$2000 for salary of an Executive Secretary for the coming year, and it was further voted that \$300 be appropriated toward the work of the State Antidiphtheria Campaign Committee. A proposed amendment to the constitution reducing the dues of members from \$4 to \$2 a year was adopted. Officers of the Association for the coming year were elected as follows:

President, D. C. Bowen, Asbury Park; First Vice-President, Samuel B. English, Glen Gardner; Second Vice-President, Samuel L. Salasin, Atlantic City; Third Vice-President, F. J. Osborne, East Orange; Secretary, Edward Guion, Atlantic City; Treasurer, Herbert B. Baldwin, East Orange; Chairman Executive Council, James E. Brooks, Glen Ridge.

MINUTES OF THE WELFARE COMMITTEE

Trenton, New Jersey,

February 2, 1930.

In pursuance to a call regularly issued under direction of the Chairman, The Welfare Committee met at the Stacy-Trent Hotel, Sunday, February 2, at 3 p. m., with Dr. A. Haines Lippincott presiding.

Roll call disclosed the following members present: Barkhorn, Bloom, Clayton, A. H. Coleman, Conaway, Cosgrove, Dandois, Davis, Donohoe, Ely, Emerson, Green, John F. Hagerty, D. Leo Hagerty, Hunter, Lee, Lippincott, Londrigan, McBride, McMahon, Morrill, Morrison, Morrow, Mulford, Remer, Ryan, Schauffer, Schlichter, Schureman, Sewall, Sherman and Kelley; Vice-President George N. J. Sommer was also in attendance. Excuses were received from Drs. Emory and Larkey.

REPORT OF THE EXECUTIVE SECRETARY

The reading of the minutes of the last session of the Welfare Committee will scarcely be neces-

sary inasmuch as a full report of those proceedings was published in the January issue of the State Society Journal.

Since the date of that meeting, December 1, 1929, the work of the Field Secretary and of the Editor of the Journal has continued as usual. Mrs. Taneyhill's work, in particular, has developed in a most satisfactory manner and she has been reaching with her educational program much larger audiences than we had any reason to expect or even to hope for. Furthermore, from many sources we hear highly flattering reports of the impression she is making.

(1) *Woman's Auxiliary.* You will remember that 2 years ago we made very successful use of a small, blue "Primer" in our periodic health examination campaign. We have been casting about for some plan to effectively aid development of the Woman's Auxiliary, which is doing excellent work in some counties and good work in most of the others, but is nowhere accomplishing all that is possible to such an organization, and we have prepared another booklet and request authorization for its printing and distribution to the wives of members of the state medical society. This pamphlet is designed to inform its readers concerning the commencement and purport of the auxiliary movement, the desirability of its development, the proper methods of procedure, to suggest the things which auxiliaries might, could, would or should do, and how to do them. We have submitted the manuscript for criticism to the President of the Woman's Auxiliary to our State Medical Society, to the Field Secretary, and to the Secretary of the Medical Society, Dr. Morrison, and it has received unanimous approval. It will cost somewhere in the neighborhood of \$200 for printing and distribution. As there is no apparent need for all of the Welfare Committee's budget appropriation this year for legislative work, we request authorization to spend a portion of that fund in the manner described.

(2) *Radio Broadcasting.* The radio program has been continued and we have a series of Friday evening health talks booked through to the end of April. We are pleased to report, further, that our recommendation to county medical societies that they inaugurate broadcasting from local radio stations has been accepted in several counties; and that programs are now being regularly conducted by Bergen and Monmouth county societies. It is reported that some steps have been taken toward establishing similar programs in Essex, Hudson and Passaic counties, but we are not advised of the progress thus far made in those districts.

Unfortunately, the radio is a two-edged sword, and some of you may have learned that it is being used as an advertising medium by medical impostors. It may interest you to know, however, that partly through the activities of our office, a reform movement has been started. Nearly 3 years ago we endeavored to induce the Radio Broadcasting Corporation of America to appoint a physician member on its Advisory Council with a view to preventing abuse of aerial messages. Our suggestion was not accepted at that time. Last summer we detected a faker using WPG under the guise of "Talks on the Chemistry of Food", and with the help of Dr. W. Blair Stewart, Chairman of the Public Relations Committee of the Atlantic County Medical Society, succeeded in having that man's speaking privileges canceled, and through information supplied to Dr. Kelley, Secretary of the Board of Medical Examiners, we were instrumental in starting an investigation that resulted in the prosecution and conviction of Dr.

Pretorius on the charge of practicing medicine without a license. During the early part of this winter we picked up several radio speeches from New York stations which indicated to us that quacks were using that means of advertising medical consultations and such devices as electromagnetic apparatus, inviting patients to stores or other institutions where they might be told how to treat whatever ills they were suffering from. These medical centers were established in New York City, Brooklyn, Newark, Paterson, Elizabeth, and New Brunswick. The information was passed on to Dr. Kelley, in so far as it implied to this state, and to the officers of the New York State Medical Society. In New York there is a coincident active campaign under the direction of Health Commissioner Wynne against such quackery, and he has gotten most of the large broadcasting stations to agree not to permit medical talks that are not first approved by the Board of Health or the Academy of Medicine. He has also secured the privilege of presenting a proper health program regularly from Station WEAJ. We note, too, that a bill has been introduced into the New York Legislature which, if enacted into law, will require approval of the State Health Commissioner for all statements concerning patent medicines, devices and remedies before the same may be broadcast.

(3) *Legislation.* The General Assembly of New Jersey has been in session since the first of the year. The only bills affecting the medical profession up-to-date are: A. No. 1, which provides for continuance of the commission to inquire into the condition of crippled children; A. No. 3, requiring that death certificates must be signed promptly by the physician last in attendance—"in time for burial"; A. No. 13; which is the old "Sterilization Bill", improved by being made to conform to the Virginia law which has been pronounced constitutional, and given a still further safeguard in a provision that the operation can be performed only by a surgeon and after endorsement of the proposed operation by a special Board consisting of the Commissioner of Institutions and Agencies, a surgeon and a neurologist; A. No. 85 and A. No. 86 cover 2 amendments to the law controlling the practice of chiropody. The first amendment proposes 2 changes in the present law; one of which would markedly improve the standard of education to be acquired of those seeking a chiropodist's license, and the other would define the limits between chiropody and orthopedics. The second amendment calls for the appointment of a chiropodist upon the present general Board of Medical Examiners. A. No. 92, "Barbers" and A. No. 93, "Surgery Standards" are not yet available for study, but the latter is probably like A. No. 290 of last year.

(4) *Installation Collections.* President McBride sent us during January some advertising matter of the Gilbert Acceptance Corporation, which has been extensively advertising in this state, and which carries as a slogan—"Doctoring and dentistry by instalments". We have had some correspondence with the president of the corporation, who asked that his projects be endorsed by the state medical society, and we promised to submit the matter to this committee; at the same time advising him that the Executive Secretary is opposed to his proposition in parts and in toto, and giving him reasons for that opposition. It might not be fair to the corporation, possibly would not be fair to the state medical society, for the Executive Secretary to act alone upon so important a matter, and we request permission to present the subject here in full, or that a special subcommittee

be appointed to consider the question and take action upon the acceptance or rejection of the corporation's plan.

Respectfully submitted,

Henry O. Reik, M.D.,

Secretary, Welfare Committee

Upon motion of Dr. Conaway, the Secretary's report was considered by sections separately for action.

The request for authorization to publish a booklet on woman's auxiliary work was granted, upon motion of Dr. Schaufler, seconded by several members, and unanimously adopted.

Dr. Green moved that the plan for collections and guaranteeing of physicians' accounts, submitted by the Gilbert Acceptance Corporation, be rejected. His motion was seconded by several members and unanimously adopted.

Considering legislative matters: Assembly Bill No. 1, providing for continuance of the Commissioner on Crippled Children, was approved by unanimous vote.

Assembly Bill No. 3, regarding prompt signing of death certificates, was submitted and Dr. Morrison's motion that "this bill be not opposed", was adopted after some discussion by Drs. Hagerty, Ryan, Londrigan, Conaway, Emerson, Donohoe, Ely and Cosgrove.

Assembly Bill No. 13, the "Sterilization Bill", was discussed by Drs. McBride, Bloom, Ely, Barkhorn, Hagerty, Cosgrove, Ryan and Morrison. Dr. Green moved to endorse the bill. Dr. John Hagerty moved to lay that motion upon the table, and Dr. Hagerty's motion was seconded and adopted.

Assembly Bills No. 85 and No. 86, relating to chiropody, were explained by the Secretary and discussed by Drs. Morrison, Kelley, Emerson and Sommer. Dr. McBride moved that this bill be referred to a committee of 3, with power to act, and upon adoption of his motion, the Chair appointed Drs. Kelley, Morrison and Morrill.

Assembly Bill No. 92, the Barbers' Bill, could not be considered because copies have not been made available as yet.

Assembly Bill No. 93, requiring special training for the practice of surgery and the surgical specialties, was not available to study but upon the assumption that it is the same as Assembly Bill No. 290, of last year, the committee voted to oppose its passage.

The Secretary explained why the special committee's report on that bill was not published in the January Journal, and distributed mimeographed copies of the committee report to all of the Welfare Committee members present.

Dr. Davis reported that the special committee of which he is chairman had held a conference with the osteopaths with reference to a bill whose introduction is contemplated, and explained the wishes of the osteopaths.

Drs. Morrill and Morrison called attention to the fact that the osteopaths are divided into 2 groups and that their legislative wishes do not harmonize.

After some discussion by Drs. Green, Schlichter, Davis, Morrill, Kelley, Emerson and Mulford, Dr. Morrison moved that consideration of this bill be referred back to the committee and his motion was adopted.

Mr. Buch, Chairman of the Commission on Crippled Children, was then introduced and reported upon the work of that commission as follows: It is not only a pleasure but a privilege to again have the opportunity of meeting with the members of the New Jersey State Medical Society in connection with our Crippled Children's program. I recall that when the work was first

started, your organization coöperated wholeheartedly concerning the various bills recommended to the legislature and aided in procuring their enactment into law. In view of the fact that you were so vitally interested in that legislation, I would like, if I may, to deviate for just a minute and give a brief résumé of our Crippled Children's work to date.

In a state survey, we located approximately 10,000 crippled children between the ages of birth and 18 years, or approximately 7.24 cripples to every 1000 of population in the age group mentioned. It was then necessary to devise a system whereby all of those in need might receive the necessary care and attention. The Elks' Lodges of New Jersey had been doing constructive work in connection with the rehabilitation of crippled children and it was decided to ask their continued coöperation. The names were divided in respect to Elks' district jurisdictions, and the lodges were requested to employ a registered nurse or competent person to definitely check each and every name so as to ascertain the following 5 conditions: (1) children in need of examination or re-examination; (2) of school age and not attending school; (3) in need of vocational guidance and training; (4) mentally deficient and crippled to such an extent that they require special institutional care; (5) classed as hopelessly helpless but not mentally deficient, and requiring special attention. Through this extensive check-up we have located approximately 2000 additional case records. Approximately 3500 have requested examination or re-examination, and at the present time we are endeavoring to provide this examination so that within the next year we may be able to broadcast to the world that every crippled child in the state of New Jersey has had the opportunity of examination and diagnosis, followed by operation if necessary, hospital care, after-care, and convalescent care. Incidentally there has been established by the Elks, in Atlantic City, the Betty Bacharach Home where all crippled children in need thereof may receive convalescent care and attention.

We desire to publicly commend and congratulate the physicians of this state for their wholehearted coöperation, as it has been and must be through their coöperation that we provide the necessary care for all those in need.

Those reported of school age and not attending, we anticipate calling to the attention of Boards of Education in the respective jurisdictions, thereby enabling them to secure the advantages of an education in accordance with the laws recently enacted, providing special classes or home teaching for all those in need thereof.

Concerning those mentally deficient, in addition to being crippled, and requiring institutional care, we are endeavoring to ascertain definitely how many there are whose parents desire attention of this character, and thereafter we will have the necessary papers completed and through the coöperation of Commissioner Ellis of the Department of Institutions and Agencies we hope that all of them may be admitted promptly. In connection with the hopelessly helpless class, not mentally deficient but requiring special care and attention, we have arranged for a consultant staff of orthopedic surgeons, thereby enabling us to definitely determine whether everything possible has been done for them. In reference to those requiring vocational guidance and training, I am very happy indeed to state that the Rehabilitation Commission of New Jersey, through Colonel Blunt, its Director, is coöperating wholeheartedly.

At the present time there are 118 in training—

102 in special classes or schools, and 16 in employment training. One of the difficult problems confronting our Commission is the securing of employment for cripples after they have been physically rehabilitated and trained to the point of employability. We are inaugurating a publicity campaign in an endeavor to secure coöperation of the employers in giving boys and girls who have been properly trained an opportunity of "Fighting Life's Battles for Themselves".

The object of my meeting your committee today is to seek your coöperation in applying Chapter 126, Laws of 1928, relative to reporting all congenital deformities at birth. We have 2 suggestions to offer for the consideration of your committee: (1) The attaching of a perforated sheet to the present birth report; the report in its entirety to be forwarded to the proper department, whereupon the perforated slip will be disconnected, in the event a visibly crippled child is reported, and forwarded to our department. Through this method the child will not be stigmatized through life by having a permanent record on the filed birth certificate that it was born a cripple. Our department is charged with a fine if we divulge the name of the cripple for any other purpose than to secure for it the necessary care and attention. The only group coöperating to date has been the midwives, reporting through the State Board of Health. We have had a sufficient number of congenital club feet, hare-lips and cleft palates reported, for which we were able to secure prompt and efficient service, to indicate that this method of prevention is an advanced step toward reducing crippled conditions in after life. (2) The other suggestion is the issuing of separate blanks, in booklet form, to be used in connection with the reporting of all visible congenital deformities at birth, these blanks to be forwarded to our department.

We desire to submit both of these suggestions to your organization for consideration and ask your coöperation in an endeavor to have this law put into effect, thereby assisting the unfortunates. Inasmuch as we desire the wholehearted coöperation of the medical profession, we will gladly discuss the project with your committee further for the purpose of devising the *best workable plan*; one that will enable us to carry our crippled children's work to a successful conclusion.

In view of the fact that in many of the smaller localities no orthopedic surgeons are available, and inasmuch as our plan is to take the facilities to the cripples rather than the cripples to the facilities, it has been suggested that the Elks' Lodges offer scholarships for the purpose of enabling general surgeons or practitioners to become orthopedic surgeons. With this thought in mind, the following resolution was submitted at the annual convention of the New Jersey State Elks' Association held in Asbury Park June last:

That the State Crippled Kiddies Committee be empowered to investigate the advisability of having either the State Association or individual lodges offer a scholarship or scholarships for the training of competent surgeons or physicians in orthopedic surgery—

We would therefore recommend that the State Association permit this investigation and that the committee report back their findings and make such definite recommendations as necessary. However, before this recommendation is to be referred for final action, it must have the unanimous approval of the medical society and be in accord with the ethical standards of that organization.

This resolution was adopted with the thought in mind that it would not in any way interfere with the ethical standards of the medical profession, and in the event that it is not practical we will take no further steps whatsoever in connection therewith.

Upon conclusion of Mr. Buch's address, Dr. Morrison moved that the proposition submitted be referred to a special committee for study. This motion was adopted and the Chair appointed Drs. Lucius F. Donohoe, Chairman, M. F. Sewall and Andrew F. McBride.

Dr. Lordrigan announced that his committee, which last year sponsored a bill to protect hospitals, nurses and physicians in the collection of charges for services rendered in accident cases, desired this year to reintroduce that bill, but leaving out all reference to physicians.

Dr. Cosgrove moved to accept the recommendation of the committee and his motion was unanimously adopted.

Dr. Hunter asked permission to introduce Dr. Rogers, of Woodbury, formerly a teacher of anatomy, University of Pennsylvania, and for many years interested in public health matters. Dr. Rogers addressed the committee with reference to public health matters, especially the need for better control of certain diseases that affect animals and human beings—rabies, anthrax and tuberculosis—and urged that steps be taken to improve existing laws and their enforcement.

The Secretary read a letter, at the request of Dr. Morrison, from the Secretary of the New Jersey State Board of Examiners of Nurses, and the committee voted its approval of the letter and requested that it be published in the Journal. The letter is as follows:

January 15, 1930

My dear Dr. Morrison:

It has been brought to the attention of the New Jersey State Board of Examiners of Nurses, through Dr. Kelley, Secretary of the Board of Medical Examiners, that some trained nurses are giving various medical treatments—colonic irrigations and physiotherapy without doctors' orders. We, as a Board, deplore this fact and will do everything in our power to bring the Nursing Profession to the understanding of its province and the carrying out of the orders of the medical profession.

Copies of Dr. Kelley's letter have been sent to the various hospital nursing schools of the state, to the New Jersey State Nurses' Association, and, by them, to the other nursing organizations of New Jersey.

We wish to be put on record as being utterly opposed to any infringement by nurses of the Medical Practice Act and earnestly desire the medical profession to know our stand in this direction.

Believe me

Very truly yours,
(signed)

(Mrs.) Agnes K. Fraentzel, R.N.,
Secretary-Treasurer

The meeting then adjourned.

Henry O. Reik, M.D.,
Secretary.

Woman's Auxiliary

OFFICIAL HEALTH PROGRAM OF THE WOMAN'S AUXILIARY OF THE AMERICAN MEDICAL ASSOCIATION

Public Hygiene

Fundamentals upon which auxiliary work for improvement of public hygiene should be based:

(1) *Recognition of the fact that* public health work is a highly technical job, requiring scientific, technically trained workers. That health work undertaken by lay women with no knowledge of the public health problem as a whole is necessarily fragmentary and ineffective.

(2) *Recognition of the fact that* every state, county and city is entitled to a scientific full-time health department (organized not to treat the sick, but to prevent disease and promote health) adequately financed, free from political domination, and providing continuity of service to a trained personnel so long as work is efficient.

(3) *Recognition of the fact that* the first and most fundamental job for lay organizations like the auxiliary is to secure such scientific full-time health departments and adequate health protection in their state, county, city or town.

(4) *Recognition of the fact that* where efficient, full-time, scientific health departments do not exist (and only about 10% of the rural districts of the United States have anything approaching adequate health protection), health activities must be initiated and carried on by volunteer unofficial agencies; but that all such work should be so planned and administered as to serve as stepping-stones toward the full-time official health department, and that when the full-time official health department with workers trained for public health work has become an accomplished fact lay organizations should support and cooperate with the official workers and should be willing to take orders from them.

(5) *Recognition of the fact that* no health department, state, county or city, can do effective work without intelligent cooperation of the public; that such public cooperation depends upon wide-spread health education; that lay organizations can do this educational work, and are needed for it; and that the Auxiliary can be one of the most valuable tools for an official health department to use in this work, because it can by its education of the public concerning the official health department's work and needs be the means of gradually eliminating or preventing political interference with an efficiently working department, and thus insure to it uninterrupted public service.

Most volunteer agencies do not yet realize the wastefulness of their individualistic efforts. One of the first things the Auxiliary should do is to work for a change of attitude in other volunteer women's organizations.

Health officials know that it is not always the work making the greatest emotional appeal to the public which most needs to be done. Unfortunately most women do not know this. This is something the doctors' wives might well undertake to teach other women.

The National Auxiliary recommends, therefore, that each State Auxiliary undertake, under the direction and with the help of the Public Health Committee of the State Medical Association,

tion and of its Advisory Council a study: (1) Of the fundamental principles of health promotion and disease prevention; (2) of the set-up considered essential by public health experts for an effective state health department, of qualifications of personnel, adequate budget, and the like; and (3) of the state health conditions, devising means of acquainting all the state board members with the result, and that recommendations for educational work by the county auxiliaries be based upon the conditions found.

In states where all is well and where time has developed good official health machinery and good health conditions, general knowledge of the fact will tend to prevent interruption of the excellent work, and will be a source of satisfaction to the women of the state.

In those states where there is much yet to be done, this investigation will indicate what sort of work needs doing first. For example:

(a) In those states which are not in the Birth Registration Area, the Auxiliaries would, without doubt, wish to tackle, as their first job, the 90% birth registration problem.

(b) In those states in which the state health department believes the "County Health Unit" to be the solution of the rural health problem, the county auxiliaries should be encouraged to take as their chief work such persistent and wide-spread education of the public as will gradually create a general demand for the full-time county health department.

(c) In those states where the rural health work is directly done "long distance" by the state health department, the county auxiliaries, if willing to work, and work under direction of the state health department, can carry on intensive local health education work which would be impossible for the state department without intelligent local coöperation.

To those auxiliaries which agree with these ideas the committee recommends the following outline of study:

(1) Vital Statistics. Their value.

Compare the vital statistics of the state with those of other states.

Compare the vital statistics of the different counties of the state.

Compare the vital statistics of the cities with other cities in the state, and in the United States.

(2) The State Health Department; its organization and program:

(a) For general state work.

(b) For coöperating with the counties in improving county health conditions.

(3) The value of the Public Health Nurse.

(4) The County Health Unit as a possible solution of the rural health problem.

Community-wide Conditions Which Affect Health

(5) Milk: Standards, why necessary what milk standards your community needs. How are these needs being met?

(6) Housing: Your community housing laws. Housing conditions as they have developed under these laws and as they affect health. Improvements needed.

(7) General sanitation and its relation to the death and morbidity rates. Sewage disposal. Water. Garbage. Flies. Dust and street cleaning.

Personal Hygiene

Improvement of personal hygiene in any community is almost entirely a matter of education. Here again the Auxiliary members must first educate themselves before they can take a safe

part in educating the public. The committee therefore recommends that the Auxiliary study programs shall include such subjects as:

Health Promotion:

Prenatal Care. Child welfare—infant and pre-school hygiene. School hygiene. Mental hygiene. Social hygiene.

The advantage to the public of general compliance with health regulations. The periodic health examination. Control of communicable diseases.

The entire program should close with a survey of all the private agencies doing health work in the community, and a discussion of the possibility and desirability of centering the direction of all such work in a full-time, scientific health department, under which the private agencies, while still maintaining their identity, would work in complete coöperation.

BLUE BOOKLET

Sometime during the next month every member of the Woman's Auxiliary will receive a booklet prepared by the Executive Secretary of the Medical Society of New Jersey for the purpose of acquainting all members with the history of this "auxiliary" movement, and of suggesting ways and means for promoting its success. It is hoped that each of you will carefully study this document and preserve it for future reference. At the same time your copy is mailed, steps will be taken to put copies into the hands of all those wives of physicians in the state who have not yet joined the auxiliary, requesting them to study this project and to give it their support. Distribution of the booklet marks an opportune time for county auxiliaries to push their campaigns for increasing membership.

Look out for the blue booklet! Read it! Act upon its suggestions! Preserve it for future reference.

Message from Mrs. James Hunter, President Woman's Auxiliary, to the New Jersey State Medical Society

Have you difficulty in getting and applying material for your programs?

The Woman's Auxiliary of the American Medical Association is preparing "Study Programs". These have the approval of the Advisory Council of the A. M. A.

Eventually sufficient number will be sent to every county. There are 3 copies of the initial program in this state, and copies may be had by asking: Mrs. Edward Clarke, 435 Warwick Avenue, West Englewood; Mrs. A. J. Casselman, Second and Penn Avenue, Camden; Mrs. James Hunter, 104 Station Avenue, Westville.

It is entitled: "The Most Common Defects in Children; Their Effects; What Is Being Done to Overcome Them".

Why not arrange a program for a future meeting with the material so supplied as a background?

Atlantic County

Reported by Mrs. Maurice Chesler

The Woman's Auxiliary of the Atlantic County Medical Society gave a musical and tea, Friday afternoon, February 14 in the Japanese Room of the Ambassador Hotel, in honor of Mrs. James Hunter, President of the Woman's Auxiliary of the New Jersey State Medical Society.

The musical program included vocal selections by Mrs. Fred Plum and Mrs. Thomas G. Dunlap, accompanied on the piano by Mrs. Alfred W. Vestney; and a violin solo by Miss Miriam Barbash. Dainty refreshments were served.

Mrs. James H. Mason, chairman of arrangements and her committee are to be congratulated for making this affair such a delightful one.

In the evening a regular meeting of the Auxiliary was held at the Chalfonte Hotel and we were again honored by Mrs. Hunter's presence. Mrs. J. T. Beckwith presided. After roll call of officers and members, the minutes of previous meeting were read and approved. All bills were ordered paid and correspondence filed.

Mrs. James Mason reported plans are under way for a card party to be given in the near future.

After the meeting we were greatly inspired and encouraged by Mrs. Hunter's splendid talk on "Why An Auxiliary".

Those present at the tea and meeting were: Mrs. James Hunter, Mrs. J. T. Beckwith, Mrs. James H. Mason, Mrs. Robert A. Bradley, Mrs. Lawrence A. Wilson, Mrs. Joseph Poland, Mrs. S. T. Gorson, Mrs. Samuel Winn, Mrs. Milton S. Ireland, Mrs. John F. Massey, Mrs. Fred Plum, Mrs. Thomas Dunlap, Mrs. Alfred W. Westnet, Miss Miriam Barbash, Mrs. Samuel L. Salasin, Mrs. Percy Joy, Mrs. Louis Rosenberg, Mrs. L. M. Walker, Mrs. Charles B. Kaighn, Mrs. Earl V. Johnson, Mrs. Ernest Henderson, Mrs. Ernest Shore, Mrs. James J. Quinn, Mrs. Benjamin Rosenblatt, Mrs. Sidney Rosenblatt, Mrs. Howard Vestney, Mrs. Milton Crass, Mrs. W. Price Davis, Mrs. W. S. Conklin, Miss Katherine Conklin, Mrs. James North, Mrs. D. C. Reynor, Mrs. Bernard Crane, Mrs. Manuel J. Malley, Mrs. Carl Surran, Mrs. W. D. Olmstead, Mrs. E. H. Harvey, Mrs. John Irvin, Mrs. Joseph Thompson, Mrs. William Roup, Mrs. William Westcott, Mrs. H. I. Silvers, Mrs. F. A. Pond, Mrs. C. A. Bates, Mrs. Leland Madden, Miss Helen Kirstetter and Mrs. Maurice Chesler.

Bergen County

Reported by Mrs. Charles Dezer

The meeting of the Woman's Auxiliary to the Bergen County Medical Society was held February 11, at the Englewood Hospital. There were 20 members present. The minutes of the last meeting were read and approved.

We feel greatly indebted to the Hospital Superintendent (Miss Lewis) and the Director of the Out-Patient Department for the pleasant evening spent at cards in their homey, pleasant apartment, after which we were invited to a delicious supper with the members of the Bergen County Medical Society.

Burlington County

Reported by Mrs. J. S. Conroy

An all-day meeting of the Woman's Auxiliary to the Burlington County Medical Society was held on Tuesday, January 21, at the Burlington County Hospital, Mt. Holly.

In the morning and part of the afternoon, the auxiliary members mended garments for the Mt. Holly Hospital. A box luncheon was served, followed by a short business meeting with Mrs. R. E. Haldeman presiding.

Plans are being made to place Hygeia in the Burlington High School, Burlington Y. W. C. A., Burlington Library, Florence Public School, Columbus High School, and Bordentown High School.

Mrs. Haldeman and her committee are making arrangements for a luncheon to be given at the

Riverton Country Club in March. We hope to have as our guests, Mrs. E. C. Taneyhill and Mrs. A. Haines Lippincott, both of whom will deliver addresses.

Cape May County

Reported by Mrs. O. F. Ziegler

A regular meeting was held at Hotel Bellevue, Cape May Court House, February 27, at 11 a. m., with the President, Mrs. Frank Hughes, in the chair.

After usual business, the meeting was turned over to our honored guest, Mrs. James Hunter, President of the Woman's Auxiliary to the Medical Society of New Jersey. We were very happy to have her with us to talk about the interesting and splendid work which she has planned, especially on Hygeia.

We were doubly honored in having with us also Mrs. W. C. Raughley, from Berlin, N. J., and Mrs. Wescott, from Camden, who told us of the activities in their auxiliaries.

The meeting adjourned, after which we joined our husbands in a delicious luncheon, followed by cards and golf.

Essex County

A meeting of the Woman's Auxiliary of the Essex County Medical Society was held at the Nurses' Home of the Newark City Hospital Thursday, January 27.

Mrs. H. Roy Van Ness, the President, entertained the executive board and the guests—Mrs. James Hunter, State Auxiliary President, and Mrs. W. Wayne Babcock, the Speaker—at luncheon at the Hotel Suburban, East Orange, preceding the meeting.

Forty-five members attended the meeting, and it is obvious that interest in our organization is rapidly increasing, and that new members are being added to our list.

Chairman of various committees responded promptly with reports of work accomplished.

Mrs. Don. A. Epler, Chairman of Health Education, reported that a series of talks had been given by Mrs. Ethel C. Taneyhill, who, in her visits to Essex County, had addressed 4829 people.

Mrs. Geo. A. Rogers, Chairman of Child Welfare, told of a survey she had made of work done for children of pre-school age, and of a visit to the New York Maternity Center.

Mrs. Samuel Jessurun, Chairman of the Journal Committee, read several interesting articles pertaining to medicine, which she had collected for her book of clippings.

Mrs. Harry Commando, Chairman of Hygeia Committee; Mrs. Chas. Schneider, Chairman of Legislative Committee, Mrs. R. M. Rogers, Chairman of Publicity, and Mrs. Chas. Rothgeber, Chairman of Membership Committee, gave interesting reports of their work.

It was moved and seconded that a special invitation be sent to, and a bouquet be provided for all the doctors' mothers, for whom the next meeting will be given.

Mrs. James Hunter was introduced by Mrs. Van Ness, and responded most graciously. She congratulated the auxiliary on its work, and was much pleased with the enthusiasm of Essex members.

The speaker of the afternoon was Mrs. W. Wayne Babcock, of Philadelphia, our national organizer. She spoke on the aims of the auxiliary—that we aid the medical profession by advancement of the cause of preventive medicine; by securing adequate medical legislation; and promoting

friendship among the doctors' wives. She advised that a committee of 5 men from the county society be consulted as an advisory board in our work.

Mrs. James Brothers, Chairman of the Social Committee, assisted by Mrs. S. H. Baldwin, acted as hostesses at tea, which was enjoyed by all the members.

Hudson County

Reported by Mrs. Joseph Binder

Regular monthly meeting of the Auxiliary to the Hudson County Medical Society was held on Friday, February 21, at 2:30 p. m., at the Young Women's Christian Association, Jersey City, Mrs. John Nevin presiding. A warm welcome was accorded many new members. The minutes of the last regular meeting, which was held in November, were read and approved. The December meeting was eliminated because of the holidays and at the January meeting we had our Annual Bridge Party, which was a huge success, with Mrs. G. Culver, chairman.

Mrs. J. Murphy, in her inimitable way, then gave a fine résumé of the Executive Board meeting at Newark on January 9. In the absence of Mrs. H. Perlberg, Mrs. J. Murphy read the Treasurer's report.

Mrs. John Nevin introduced the speaker, Dr. Julius Levy, Director of Child Hygiene of the state of New Jersey, whose message, in brief, was for the medical profession to lead the procession in public health work.

Mrs. A. E. Jaffin talked to us of the value of Hygeia.

Ocean County

Reported by Mrs. E. G. Herbener

A regular meeting of the Woman's Auxiliary to the Ocean County Medical Society was held Thursday afternoon, February 20, at the residence of Mrs. Stewart Lewis, Cranmoor Manor, Toms River, with Mrs. F. N. Bunnell presiding.

Local matters were brought up and discussed, and committees appointed to take care of same.

Those present were Mrs. V. M. Disbrow, Mrs. Ralph Jones, Mrs. Stewart Lewis, Mrs. F. N. Bunnell, Mrs. Frank Denniston, Mrs. E. G. Herbener and Mrs. Alfred Woodhouse.

Professor Morris, County Superintendent of Public Schools, and Mrs. Wesley C. O'Leary, State Supervisor of Domestic Science, were invited guests.

After serving refreshments several vocal selections were rendered by Mrs. Alfred Woodhouse, which were very much enjoyed by those present.

Mrs. V. M. Disbrow reported on the lecture delivered by Mrs. Ethel C. Taneyhill to the Good Fellowship Club at the Y. W. C. A. in Lakewood on October 10; the audience which numbered more than 50 persons appreciated Mrs. Taneyhill's lecture very much.

Somerset County

Reported by Mrs. Dan S. Renner

The Woman's Auxiliary to the Somerset County Medical Society held its regular meeting Thursday afternoon, February 13, at the Nurses' Home in Somerville.

The meeting was called to order by the President, Mrs. C. R. Kay, of Peapack. In the absence of Mrs. Lancelot Ely, Mrs. Josiah Meigh, of Bernardsville, acted as secretary. The minutes of the last meeting were read and approved.

Mrs. Edgar Flint, of Raritan, and Mrs. Josiah

Meigh were elected delegates; Mrs. A. Longstreet Stillwell and Mrs. Charles F. Halsted, of Somerville, alternates; to the State Convention to be held in Atlantic City in June.

Mrs. J. L. Young, of Somerville, Mrs. Dan S. Renner, of Skillman, and Mrs. Josiah Meigh, were appointed to act as committee to arrange for a card party to be held in the near future.

Mr. Robert G. Sanford, County Superintendent of Schools, gave a short review of the Public Health Program which has been carried out during the past year.

At this time the auxiliary was invited by the County Medical Society to attend its meeting where a special program was being presented.

The meeting adjourned for this purpose and heard a very interesting review of some of the most important articles of the last 3 State Medical Journals given by Dr. Henry O. Reik; and an explanation of the various bills which are of special interest to physicians and which have been presented to the legislature.

After the meeting, delicious refreshments were served by the staff of nurses—during which time pictures were thrown on the screen, showing the "Surgical Treatment of Peptic Ulcer".

The machine used for this show has just been presented to the County Medical Society and the society assured us that it was for use of the Auxiliary as well.

County Society Reports

ATLANTIC COUNTY

John S. Irwin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held February 14, at the Chalfonte Hotel with the President, Dr. H. I. Silvers, in the chair. Minutes of the January meeting were read and accepted.

Dr. W. E. Darnall, of the Library Committee, called attention to the recent addition of several volumes of particular interest.

A letter was received by the Secretary from the advertising manager of the Hotel Chelsea in reference to extending an invitation to the American Association for the study of Goiter to have its 1931 meeting in Atlantic City; stating that the invitation would have to come through this society. A motion was carried that this invitation be extended without mentioning the Hotel Chelsea.

Dr. Coraway made a motion, which was carried, that the visiting surgeons present at this meeting be made members for the evening and be given the privilege of entering into the discussions.

Dr. Silvers introduced Mr. Clovis, of Rutgers University, who spoke of the Post-Graduate Courses this college is preparing in conjunction with the Medical Society of New Jersey. There will be 2 courses, each to cover 8 weeks, 1 lecture a week. One course will concern general medicine and the other traumatic surgery. In order to organize a class there must be a minimum of 25 members. The lecturers for South Jersey will come from Philadelphia, and for North Jersey they will come from New York and Newark.

Mr. Clovis stated that there was a possibility of Atlantic County and Cape May County Societies joining for formation of classes and that there might also be some from the Southern part of Ocean County who would be interested; and that Atlantic City would be the most central meeting place for these regions. The lecturers are submitting their schedules for April and May, but classes

must be under way by April 1. The cost will be \$30 per person for each course of lectures. (The courses were described in February Journal, page 147.)

Dr. S. A. Cosgrove, Chairman of the Committee of the State Society for this project was present at the meeting and stated that classes were being formed in Bridgeton and in Camden, and that he thought it a most excellent idea to make Atlantic City the center for the southern coast section.

A motion was carried that the Atlantic County Medical Society appoint a committee to act in conjunction with the State Society Committee in this project, and the President appointed Drs. W. J. Carrington, Chairman, R. A. Kilduffe, and Clyde M. Fish.

As there was no further business the President introduced Dr. Collier F. Martin, Professor of Proctology, University of Pennsylvania, who spoke on "Rectal Infections".

Dr. Martin's presentation consisted of a lantern slide demonstration. He first showed diagrammatically the development of the rectum and the anal canal from the cloaca into which the primitive hind gut opens. Where the rectal wall of the cloaca comes in contact with the ectoderm of the subcaudal body wall, there is formed a membrane of entoderm and ectoderm. As this membrane is absorbed the anus is formed. The junction line remains as the white line of Hilton.

The next slide showed the blood, nerve and lymphatic supply. The blood supply of the rectum is part of the portal circulation; and that of the anal canal is part of the general circulation. The lymphatics of the anal canal drain into the inguinal lymphatics, so that in infections of this region we may have secondary inguinal infections. The lymphatics of the rectum drain into the mesenteric system. The nerve supply is of the greatest importance because the anal canal is supplied practically entirely by the cerebrospinal system and this area has the special senses; on the other hand, the nerve supply to the rectum is from the autonomic nervous system and deals altogether with function; so, anal diseases interfere with sensations while rectal diseases interfere with function.

The next slide showed the levator ani muscles, flat bands of muscle fibers separated in the middle for passage of the anal canal; these muscles have much to do with the control of the bowels. When the anal canal is stretched the skin will be put on tension and a tear may occur, which in the majority of cases is posteriorly on the white line of Hilton in the male, and that is where anal fissures are found. In the female there are more anterior fissures. The majority of perirectal abscesses start posteriorly and only secondarily involve the ischio-rectal fossa. A portion of fat is put there to prevent traumatism from within, not without. The important thing to know is that the ischio-rectal fossas communicate with each other posteriorly through loose tissue and an abscess on one side may be followed by one on the other side the next day; this is the "horseshoe" abscess.

The rectum passes through the pelvis and is held in place by anterolateral suspensory ligaments dividing it into 3 segments. Behind the rectum is loose tissue which is the site of post-rectal abscesses; which may become very large. In this type there is no bulging externally; but marked bulging may be felt internally. In front of the lateral ligaments above the levator muscle there is more loose tissue and with abscess in this region one would not see anything outside but would find it by palpation. Such an abscess may hold a large amount of pus. In ischio-rectal ab-

cess there is distension of the buttock, redness and induration; as this type will hold only 2 oz. pus, if you have more look out for a deep abscess.

In cases of fissure the muscle goes into spasm after stool. There is terrible burning pain until the muscle tires and then relaxes. Do something to relax muscles, take out ulcer or stretch the sphincter. In crypt infection with ulcer we frequently have an unhealed ulcer unless we obliterate or cut out both the crypt and ulcer. These patients then get well without further treatment. We do not lance abscesses around the rectum. We do not drain. We make an opening that you cannot drain; some call it a soup-plate operation. We took the top off the abscess shown and found a large amount of pus—one half ounce. We found it communicated with the crypt and we divided directly through to the crypt and took off the edges. Use vaseline gauze for 24 hr., then no further packing. If packing is used in these fistulas a chronic abscess develops.

Retorectal abscesses do not show on the surface; between the coccyx and anus you feel a deep induration inside and find a nodular swelling.

Stricture of the rectum is inoperable and incurable. When you have multiple perirectal fistulas as the result of stricture of the rectum, colostomy should be done. If there is any accumulation of pus, drain it. With this treatment patients are comfortable and can be carried along for many years.

Several cases of stricture of rectum with multiple fistula were shown. In stricture with fistula in the colored race there is much more profuse suppuration than in similar conditions in the white race.

Diseases in the rectum cause disturbance of function, not pain. Most cases of cancer are found in the rectosigmoid junction. Patient shows change in function first, in beginning cancer. He becomes constipated or has diarrhea, or both—first one and then the other; does not feel particularly sick, has a little gas, offensive discharge or pain, and we find inoperable carcinoma.

DISCUSSION

Dr. A. H. Lippincott (Camden): I enjoyed very much Dr. Martin's dissertation on this class of work; a very interesting subject. I do think, however, that many infections around the rectum come from other sources than the crypts of Morgani. I notice many cases are due to infections from the genito-urinary tract. I also think the most important thing in treatment of these cases is their postoperative care. Patients come back, and it is due to the fact that the wounds were not allowed to heal from the inside that the fistula returned.

I believe that if we could see these perineal infections early we could prevent the internal opening. I don't mean the cases where the infection comes through the anal canal but many cases of infection that come from other sources.

Dr. H. I. Silvers: In the ischio-rectal fossa type of case we frequently see, it is very important, as Dr. Martin has outlined it, that in operating sufficient opening is made and sufficient skin is removed. There is a great tendency for the skin to heal faster than the internal or softer tissues. The area of skin removed should at least equal the greater area of the cavity in the interior. At the same time if there is only a moderate amount of pus there should be a rather minute inspection made of the upper wall. It is not uncommon that in opening you have combined a superior and inferior abscess and the condition will recur if the upper abscess is incompletely drained. There is

a tendency of the skin to seal up, and if not watched there is in the majority of cases a bridging over of small pockets where reinfection will occur.

Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The regular meeting of the General Staff of the Atlantic City Hospital was called to order by the President, Dr. C. C. Charlton, January 24, 1930.

The scientific program was presented by Dr. Clarence L. Andrews, Chief of the Medical Service; his report embodied the months of August, September and October. Total number of admissions 134, of which 63 were males and 71 females. Of the 63 males, 42 were white and 21 colored. Of the 71 females, 54 were white and 17 were colored.

The total number of cases were classified as follows:

Head and cord, 13; cardiovascular, 20; pulmonary, 18; gastro-intestinal, 16; acute infections, 3 (1 typhoid and 2 acute tonsillitis); metabolic diseases, of which all 10 were diabetes mellitus; genito-urinary, 11; diseases of the joints, 6; acute poisoning, 15, which were caused by bichloride of mercury, iodine, sunburn, creolin, cibalgine, carbon monoxide, potassium permanganate; miscellaneous cases, 14.

Of the 16 mortalities, 6 were so moribund at the time of admission that death occurred within a period of 12 hours.

A brief commentary of these cases follows:

(1) A boy, 13 years of age, had been ill 2 days at home with epidemic cerebrospinal meningitis. Admitted in a state of deep coma with the entire body spastic; spinal fluid drawn was extremely thick and antimeningococcic serum was given. Specific organism isolated.

(2) Male, 48 years of age, chronic alcoholic, admitted with history of being constantly drunk for the past 2 years; lived 1 hr. after admission.

(3) Female, 73 years old, admitted with signs and symptoms of intestinal obstruction; the salient features denoted that she was suffering pain in the abdomen for the past 2 weeks with an accompanying diarrhea. The morning prior to admission she was seized with violent abdominal pains and vomiting, and she died shortly following admission.

(4) Female, aged 50, admitted with marked signs of intestinal obstruction; condition moribund and did not recover consciousness.

(5) Male, 60 years of age, demonstrating marked signs of lobar pneumonia.

(6) Female, aged 69, admitted in a moribund condition suffering with a chronic cardiovascular renal disease. Catheterized specimen showed marked signs of a very severe nephritis. She died shortly after admission.

(7) Female, colored, aged 21. Admitted complaining of diarrhea, sore mouth and stiffness of joints. She was well until 1 yr. prior to admission when she was suddenly seized with pains, stiffness and swelling in the knees and ankles. Menstrual period began at the age of 12 and was regular until March, 7 months prior to admission, during which time she has had a free vaginal discharge. A short time prior to admission the patient had a very persistent diarrhea and stated that all food she ate was immediately eliminated through the bowels. Simultaneously, a pronounced pyalism was inaugurated making the patient afraid to swallow due to the pain which it caused in her stomach.

Her entire body seemed to be tender; pupils were dilated and reacted sluggishly to light; inequality was noted. Entire mouth tender, tonsils enlarged and infected and teeth in very poor condition. The abdomen was scaphoid, the genitalia swollen, and a profuse vaginal discharge was present. The extremities showed exaggerated reflexes with a positive bilateral Babinsky. Temperature 100°; pulse 90; respiration 28. Erythrocytes 2,450,000; leukocytes 5200; hemoglobin 43%; polys 52; small lymphocytes 38. Blood Wassermann, Kahn and spinal fluid Wassermann negative.

A complete autopsy was performed and the following important necropsy findings reported by Dr. R. A. Kilduffe. An extremely malodorous discharge from the vagina. Lungs show dense diaphragmatic adhesions on the left side. Both lungs crepitant and show no pathology aside from several calcified nodules the size of a pea in both apices.

(8) Male, 56 years of age. Admitted with severe pain in the right abdomen which extends toward the back. General health has been good except for severe attacks during the past few months. Has had double inguinal hernias the past 20 years. Twelve days prior to admission he complained of very severe abdominal pain which extended across the lower abdomen; which pain followed the ingestion of grapes. The pain was followed by diarrhea tinged with blood. Bowel movements afforded a temporary relief. A high colonic irrigation was ordered but the nurse was unable to pass the rectal tube very far. Obtained a bloody fluid by so doing.

Heart markedly dilated to the left. Pulse irregular, rate 120 and temperature 99.5°. Blood pressure 110/70. Fine moist râles found at both bases. Abdomen distended throughout but not markedly tender at any point. Active peristalsis was present.

Important laboratory findings: Leukocytes 8500; polys 82%; blood sugar 110; urea 68; creatinin 3. Several days later leukocytes 10,000, polys 82%. The feces showed occult but no free blood; otherwise negative. The following day the leukocyte count was 9800 with 92% polys. Blood Wassermann negative. Seven days later, which was the day of death, the leukocyte count was 6400 with 72% polys.

The important autopsy findings were centered in the abdomen which contained a very large amount of free blood and blood clots and numerous and extensive dense adhesions throughout, affecting all the abdominal viscera and especially the mesentery, liver, cecum and gall-bladder. The lower end of the ileum, cecum, appendix and ascending colon dark colored and gangrenous. Despite a careful search the source of the intra-abdominal hemorrhage was not discovered and as the clinical history relates the findings of blood in the feces it seems probable that the hemorrhage occurred from a perforating ulcer at some point in the intestinal tract.

Anatomic diagnosis: Old bilateral pleural adhesions; generalized plastic peritonitis; intra-abdominal hemorrhage; perforating intestinal ulcer (undiscovered source).

(9) Male, aged 12, admitted complaining of fever and weakness of 2 days duration. The essential findings demonstrated that the boy had been ill 2 days prior to admission when he complained of a sudden chill followed by fever. There was noted a purpuric rash over the body, most marked over the abdomen with hemorrhagic areas in the conjunctiva; pupils were contracted; a nasal discharge was present. Neck was rigid, all

reflexes were markedly exaggerated; positive Kernig sign present.

Leukocyte count 31,900, polys 90%. Spinal fluid demonstrated numerous pus cells and a pure culture of meningococcus.

Despite intensive administration of antimeningococcal serum the patient died. The serum was administered both intravenously and intraspinally.

Authors state that when a case is purpuric in type the intraspinal administration of serum should be resorted to mainly.

In closing his discussion Dr. Andrews thanked the many services for their coöperation and ready assistance.

Dr. D. Ward Scanlon commented upon the lack of positive physical findings during the course of illness of patients who demonstrated obvious severe infection and at autopsy no obvious pathology can be demonstrated; there seems to be a slow dissolution of these patients with an accompanying reversal of physiologic processes.

Dr. Harley stated that not infrequently irregularity of pupils can be due to abnormal irritation of the cervical sympathetic nerve.

Dr. S. L. Salasin discussed in detail a patient, female, 38, who demonstrated an acute abdomen. A laparotomy was performed and nothing definite found. The patient progressed in a normal manner. Two weeks later she developed a severe colitis, abdominal pain, diarrhea and bloody stools. Death ensued, and at postmortem free blood was found in the abdominal cavity with a degenerative mesenteric infarct.

Dr. Kilduffe discussed meningitis. There have been some very interesting developments of great practical importance with regard to the serum treatment of meningococcus meningitis. Until very recently this has been a most successful method, failure, when the treatment was begun relatively early in the disease, being attributed to the existence of "serum-resistant" strains which, when encountered, were then added to the strains used in manufacturing the serum. A recent report of 34 cases, however, record 10 deaths despite the use of several different lots of serum, the mortality not being controlled until, by successive trial, an effective serum was found.

The result of the ensuing investigation, in brief, was this: Practically all manufacturers use the 4 Gordon types of meningococci for preparation of the antiserum. Many, however, in addition use "serum-resistant" strains and strains from various epidemics. An inquiry I made of various firms elicited 3 replies: One used only 4 Gordon types; another in addition used "several" other strains; and the third used, in all, 13 strains of meningococci.

Now, shortly after the introduction of antimeningococcal serum. Wadsworth as well as others showed that a multiplicity of strains in the preparation of meningococcal serum, instead of increasing its polyvalent potency, actually caused a reduction in its effect on one or more of the strains involved. In other words, a serum made from the 4 Gordon types was effective against those types; a serum made by injecting 10-20 different strains of meningococci, might be, and almost invariably was, definitely less effective against one or more of those types.

A satisfactory method for the standardization of antimeningococcal serum has not yet been found. It has been more or less commonly assumed that a serum which will agglutinate a meningococcus will be therapeutically efficient against that meningococcus. This, however, is not the case. The presence of agglutinins and the agglutinin titer bear no proportionate relation to the bactericidal or other properties of the serum.

All of this leads to the following conclusions:

(1) When, after the use of antimeningococcal serum, there is no appreciable clinical improvement, it must not be concluded that the disease is due to a "serum-resistant" strain.

(2) In such case, another make of serum should be tried out, and, if this is likewise ineffective, another and still another until one is found which is effective.

(3) The agglutination test is not reliable as a measure of therapeutic efficiency.

(4) Hospitals, drug stores, and other sources of supply should keep on hand more than one—and as many more as possible—makes of antimeningococcal serum.

(5) While the procedure originally advocated by Gordon of isolating and typing the meningococcus, thus enabling the use of the corresponding monovalent serum, is theoretically proper, it is practically not feasible because of the time required and the delay thus caused in starting the treatment.

Dr. H. S. Davidson stated that there was no necessity for admitting all patients to the general wards who came to the dispensary seeking admission; that these patients might be kept under observation for several hours and discharged or admitted accordingly. The economic factor is very important.

Dr. V. E. Johnson discussed those cases of appendicitis which did not present classical signs or symptoms.

Dr. S. Barbash discussed the differential diagnosis between pneumonia and abdominal conditions, and emphasized the importance of very careful observation during the early stage of illness.

Discussion was closed by Dr. Andrews.

Following the scientific program the following officers were elected for 1930; D. B. Allman, President; M. S. Ireland, Vice-President; J. H. Marcus, Secretary; John S. Irvin, Treasurer.

Atlantic City Hospital Clinic

On the evening of January 31, 1930, members of the Atlantic City Hospital held a clinic for the local physicians, members of staff, and other physicians of Atlantic County. The program was presented by the following physicians:

Pediatrics: J. H. Marcus, cases of pneumonia; alimentary enema.

Gynecology, operative: W. J. Carrington, and E. F. Uzzell.

Medical: D. W. Scanlan, and H. S. Davidson—cases of trichiniasis, tularemia, pernicious anemia, psittacosis, neurocirculatory asthenia.

Surgical: T. D. Taggart and V. E. Johnson, perinephritic abscess.

Fracture Clinic: W. P. Conaway and D. B. Allman.

Laboratory studies and pathologic findings were presented and discussed by R. A. Kilduffe.

Following the clinic a buffet supper was served through the courtesy of Miss Nellie McGurran, Superintendent.

BERGEN COUNTY

C. H. Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at Englewood Hospital on Tuesday evening, February 11, and was called to order at 9 p. m. by the President, Dr. Clarke. The minutes of the last meeting were read and approved, and in the absence of the secretary, Dr.

Wolowitz acted in that capacity. After a short business meeting the president introduced the guest of the evening, Dr. John T. Howell, Attending Pediatrician to Vanderbilt Clinic and Presbyterian Hospital, who gave a very interesting talk on "Anemia in Childhood". His remarks may be summarized in the following conclusions:

(1) In studying the anemias of infancy and childhood, we must know the normal blood picture at birth, in early and later infancy and childhood, as well as the structure of the blood-forming organs where the cells seen in the circulating blood are made

(2) All of the marrow in the bones is red until 12 months of age, when the fat cells begin to appear. At the age of 14-16 years it is like that of the adult, red only in the flat bones.

(3) During last 3 months of embryonal life, iron is stored in the liver of the fetus in double the quantity stored in all the previous months, so that at birth the infant's body contains a higher amount of iron than at any time during infancy.

(4) At birth and in infancy, immature and young cells outnumber mature cells in the marrow and, so, more young cells are normally found in the blood. Consequently, the common reaction of the marrow to any disturbance is with young cells in larger numbers than in later life.

This was followed by 2 case reports by Dr. George Heller, and a case report on "Aplastic Anemia", by Dr. Sydney Franklin. Dr. George M. Levitas then read the following paper on "Appendicitis in Children".

Although appendicitis is well understood by the laity, its dangers feared and the excellent results of early surgery known, it is surprising to note that most calls for professional assistance are made after perforation has occurred and peritoneal involvement is manifest.

Appendicitis in children is very frequent, records showing that over 50% of the appendectomies done are for patients under 20 years of age. There were 41 appendectomies on children at the Hackensack Hospital last year; 21, or 50%, were perforated, with various degrees of peritoneal involvement. Comparing notes as to the time of the delay in invoking surgery, I find that the unperforated cases were operated on 1 2/3 days after the onset of symptoms and the perforated cases 2 5/6 days after onset; in other words, when patients were treated expectantly over more than 2 days, there was danger of rupture.

Further study of these cases indicates that the average perforation was treated 25 hospital days; the unperforated cases, 1 hospital day. The perforated patient then was obliged to remain in the hospital over twice as long as his more fortunate neighbor.

Of the 41 patients, only 2 died; a mortality of only 5%, taking all cases into consideration, and only 10% of the perforated cases. The outstanding fact, however, is that there were no deaths following surgery in clean appendectomies. Responsibility for the deaths, then, must be assumed by those responsible for the delay; namely, the parents and physicians who delayed surgical treatment.

A review of the histories indicates that in only 10% of these cases were physicians engaged early enough to prevent complications if surgery had been employed. I suspect that this is too low.

It is evident that our duty is to reduce the mortality of appendicitis by early surgery; that cannot be done by improving our diagnostic ability only but in a greater measure by educating the public to the importance of seeking medical advice early.

The diagnosis of appendicitis in children is more difficult than in adults. One attempting to diagnose a pathologic appendix on the symptomatology of the adult is in danger of missing his objective; there is a difference in the anatomic arrangement of the abdominal viscera and an underdevelopment of the nervous system of the younger child and the younger the patient, the greater the variation.

Time does not permit of an elaborate discussion of the anatomy of the appendix and its relationship, but for practical diagnosis it must be remembered that the appendix is relatively larger in the child and its junction with the cecum more apt to be funnel-shaped. This permits of the freer entrance of feces into the lumen of the appendix and perhaps makes possible those cases of acute appendicitis which have so many clinical manifestations yet so little pathology, besides pressure necrosis from the concretions with secondary infection of the vessels.

The lumbar spine in the youth is shorter than in the adult, which makes the appendix relatively higher. It is an error to seek maximum tenderness at the orthodox McBurney's point. Abnormal positions of the appendix are more frequently due to incomplete rotation of the intestine and to a mobile cecum. This accounts for tenderness at other than the usual points. It is to be borne in mind that retrocecal appendicitis is common in the young, often confusing the examiner because of absence of the usual surface signs.

In practicing pediatrics one must employ considerable tact to obtain the greatest amount of knowledge from observation of his patient. A shy child will often mask his subjective symptoms to avoid the doctor and his treatment; and a neuro-pathic youngster will exaggerate his symptoms; and there is nothing more difficult to palpate than the abdomen of a crying youngster. The amount of voluntary rigidity a crying infant can produce is often most distressing to the examiner. However, all these difficulties can be overcome with patience, kindness and the proper approach.

Much importance must not be placed upon the rigidity of the rectus; it is very frequently absent. Tenderness is a more frequent sign and, if persistent, can be depended on. The "rebound or relaxation" pain is pretty constant. Later, with perforation, there is rigidity and spasticity through which the mass may be felt. When peritonitis ensues, both the right and the left sides become rigid and distended.

Pain is one of the most treacherous subjective symptoms we have to interpret in children and nowhere is it more unreliable than in acute appendicitis. Colicky or cramp-like at first, it becomes quite constant during the inflammatory stage and may be entirely absent after perforation; to become very acute when peritonitis develops. At first it may be general in the abdomen, then localizing and radiating from the epigastrium, and more frequently from the umbilicus, to a fair constancy in the right lower quadrant. When peritonitis ensues pain may be complained of in the left side. It must be borne in mind that the underdeveloped nervous system of the child makes interpretation of pain location by the patient uncertain.

One cannot evaluate the severity of the disease by the severity of the pain. Head and Libman have very pointedly stated: "It is not the extent of the pathology present in a given case that determines the degree of pain experienced or registered by the patient, but rather does it vary with the degree of sensitivity of the nervous system of the individual concerned."

One of the most helpful and yet least practiced diagnostic aids, is the rectal examination. Tenderness and mass formation, if present, are noted in the right lower quadrant if the patient can be made to relax sufficiently. Here, again, one must practice a great deal of tact to obtain the best results. The finger should be well lubricated and introduced by a rotary movement; not thrust into the rectum abruptly.

Constipation is a more frequent symptom than diarrhea in the early stage but normal movements are more frequent than either. Not much importance to be placed upon any degree of intestinal activity except to condemn the practice of giving laxatives, in a painful abdomen, before an inflammatory process has been absolutely ruled out.

I have found in a considerable number of cases that more than 1° of variation between the rectal and mouth temperature indicates an inflammatory process in the lower abdomen. I should like this observation tested by others for its worth.

While the laboratory findings are very important and aid especially when other general diseases are ruled out, one must employ common sense to correlate all the findings. A leukocytosis over 12000, and a polynucleosis over 80%, indicate strong evidence of acute infection.

Other diagnostic possibilities are too rare to permit of time for discussion. The prognosis of appendicitis is good if surgery is employed early. One must no longer consider appendicitis anything but a surgical disease requiring prompt operation. If in doubt, a surgeon should be consulted early.

CAMDEN COUNTY

Robert S. Gamon, M.D., Reporter

The regular meeting of the Camden County Medical Society was held February 11, at 9 p. m., 65 members in attendance, and J. B. VanSciver, President, in the chair.

Prior to the Scientific Program of the evening, Dr. Reik gave a discourse on the work of the Welfare Committee, State Journal, and other matters of interest relating to the state society work.

The Scientific Program consisted of Case Reports.

Dr. E. W. Clark: "Congenital Synostosis of the Radius and Ulna", showed slides of x-ray pictures taken before and after operation and had the patient present for examination by members.

Dr. Williard Mengel, presented a case of "Bilateral Cataract in Baby at Birth". The results of the operation and the prognosis were discussed.

Dr. Jos. Lovett, of the Staff of the Municipal Hospital for Contagious Diseases, Camden County, presented a report of a case of "Diphtheria of the External Auditory Canal".

"Hypocalcemia with Lower Basal Metabolism and Bleeding Tendency" was the subject of an excellent case report by Dr. Hyman Goldstein. He reported 2 cases with blood chemistry studies.

Dr. Vincent Del Duca presented a case of "Infectious Purpura in Five Year Old Child".

Dr. Martin Collier, Chief of the Lakeland Hospital for Tuberculosis, presented a case of "Primary Carcinoma of the Lung" illustrated with slides.

Dr. W. J. Scruggs presented a case of "Bilateral Fracture of the First Rib", illustrating the report with lantern slides showing the fracture.

Dr. David F. Bentley, Jr., presented a case of "Hematuria".

Dr. Beulah Hollingshead presented a case of "Chondrodystrophia Fetalis".

The cases were discussed by Drs. Albert Davis, B. F. Buzby, E. E. Hummell and A. H. Lippincott.

Following the Scientific Program the question of Post-Graduate Extension Courses, under the administration of Rutgers University, was brought up. Mr. E. L. Clovis, representative of the Administration Department of Rutgers University, described the courses, in detail. Following discussion by Drs. Lee and McAllister, the matter was referred to a committee.

Drs. Ernest Larossa, Vincent McDermott, and E. C. Schull were elected to membership in the society.

The Business Committee met prior to the regular meeting, and usual routine business was transacted.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

Dr. Andrew F. McBride, President of the State Medical Society, favored the Essex County Medical Society with an address entitled "The Compensation Act in Its Relation to Doctors and the Practice of Medicine" at the meeting held in the auditorium of the Academy of Medicine of Northern New Jersey, Thursday evening, February 13. The 5½ years spent by Dr. McBride in service of the state as Labor and Compensation Commissioner afforded him abundant opportunity to draw conclusions as to the economic effect of the compensation act.

He feels that it is one of the most humane pieces of legislation on the statute books, in that it provides almost immediate means for the maintenance and care of the injured worker and his family at a time when such aid is so necessary. The Act further provides for the medical and hospital care, until such injured person is as fully recovered as it is possible to make him.

"The Compensation Act places the responsibility for providing necessary medical and hospital care on the employer. The Act further provides that he must carry compensation insurance, or he may be a self insurer if he can furnish sufficient and satisfactory evidence to the Banking and Insurance Department of the State, that it is safe to grant him such privilege. By far the greater number of employers in New Jersey are covered through insurance carriers. This has often resulted in causing trouble, due to the fact that some carriers insist on providing physicians of their own selection, to take care of their assured's injured employees, without regard to the wish of the injured person, and despite the fact that the injured person has had a family physician for years in whom he has the utmost confidence and who, in many instances, is much more competent to take care of the injured than is the physician selected by the insurance carrier or self-insuring employer. That this practice has caused much dissatisfaction to many members of the profession in New Jersey, is evident to any of the physicians of the state who have had experience in taking care of injured workers. Fortunately, this practice is not carried out by all of the insurance carriers or self insurers and there are many such who accept and pay for the services of physicians secured by the injured person, or if they are hospital cases these carriers and self insurers permit them to remain under the care of the physician in attendance at the hospital. This, to my mind, is as it should be. The carrier and his assured, like-

wise the self-insurer, is fully protected by the New Jersey Compensation Act, in that it gives them the right to have any physician or physicians of their selection see any injured person in consultation, to note the treatment and progress in such cases, and to offer any suggestions that they see fit in the treatment of such injured person. This section of the Act makes provision for as many and as frequent consultations as the employer or his insurance carrier desire. It seems that this clause in the Act thoroughly safeguards the rights and interest of the employer and his carrier. Furthermore, if some carriers and self-insurers persist in their present attitude and practice of riding rough-shod over what appears to be the inherent right of every person to select his own doctor in time of need, it won't be long before the workers of the state, together with the medical profession, will be seeking redress through an amendment to the Compensation Act, which will accord to the injured person the legal right to select his own doctor.

If I leave no other message with the Essex County Medical Society tonight, I wish you would ponder carefully and seriously this important one, that is: Should the injured worker have the right to select his own doctor in case he is injured during the course of his employment?

I feel certain that unless some carriers and self-insurers cease forthwith their practice of minimizing the disabilities of their assureds' and their own injured workers, and their attempt to force them back to work before they are able, and who fail to see to it that they are given good and competent medical care, that it will be the almost unanimous verdict of your society that the Compensation Act should be amended, that it would safeguard the rights of the injured worker and his physician."

Dr. McBride also described the splendid service rendered in many parts of the state, by the Medical Boards consisting of 3 members each—1 member selected by the Medical Society, 1 by the Carrier and 1 by the state—so that all disputed bills may be referred for the purpose of being reviewed and passed on. He recommended that they should be continued by law and that the man selected by the county society in each district be paid for his services.

Dr. McBride said he thought that no physician should be connected with compensation work for the state unless he devotes all of his time to that work, and to the exclusion of all other work. "I am still of that opinion. I feel that he should be properly compensated for it, and that if possible he should be a doctor recommended by the medical society of his district, chosen solely for his ability, integrity and high sense of justice, and because he is willing to do conscientious work. If this is done, then I feel no one can criticize the findings of such a physician. I would like to have the Essex County Medical Society and the other county medical societies of the state give this question some thought, so that if it meets with their approval, such recommendations may be made as will enable the state to make proper provision to carry them out by an amendment to the Compensation Act."

The address was enthusiastically received. In the discussions Drs. David A. Kraker and Henry H. Kessler described the great influence of Dr. McBride in bringing order out of chaos, harmony and fair treatment for the doctor, the workman and the insurance carrier.

Professor Morton, of Rutgers University, made a plea for coöperation and support of the State Society-Rutgers Post-Graduate Work.

Dr. Henry O. Reik, Executive Secretary of the State Society, and Editor of the Journal, emphasized the importance and value of the "educational campaign". He described the many valuable features now to be found in the State Society Journal, and analyzed the bills affecting the medical profession that have been introduced into the Legislature.

The following new members were elected: Robert Berman, 286 Roseville Avenue, Newark; H. C. Crossfield, 491 South Orange Avenue, South Orange; J. Marshall Ney, 239 South Munn Avenue, Irvington; William Panitch, 295 Avon Avenue, Newark.

Academy of Medicine of Northern New Jersey, Eye, Ear, Nose and Throat Section

E. LeRoy Wood, M.D., Secretary

"Recent Progress in Radiographic Diagnosis of Pathology at Base of Skull" was the title of the paper of the evening read by Dr. Raphael Pomeranz before the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey, Monday evening, February 10. Dr. Pomeranz's remarks included the following:

Röntgen ray diagnosis of intracranial pathology is one of the most difficult chapters in diagnosis. This can be easily understood when we consider the manifold structures of various densities, but of vital importance, accumulated in the small space of a cranium. Not only the anatomic position of the organs but also their anatomic variations add to the difficulties. A systematic development of this branch of science was originated by Schueller, in Vienna. Great progress has been made in recent years by Bertholotti, Oliveroma, Stenvers and others: most prominent of all is E. G. Mayer, Assistant to Prof. Holzknechts, in Vienna.

X-ray diagnosis of skull and of intracranial diseases requires precision in technic, and logical deductions of findings. The clinician should know the limitations of radiography; the radiologist, on the other hand, should know the proper value of clinical symptoms.

We are trying to further the diagnosis of intracranial basal or near-basal tumors by visualization and proper interpretation of the bony changes, particularly of the base of skull and the sinuses. Pathologic observations are most frequently in the sella and pyramids, the small wings of the sphenoid with the optic canal, and the large wings of the sphenoidal bone with the foramina.

For general survey of the main structures at the base of skull 2 pictures are necessary; one in frontal, the other in sagittal direction. The lateral view taken in frontal direction will as a rule disclose changes of the sella, the general type of the skull, thickness of the flat bones, and their digital impressions. It sometimes occurs that the anterior clinoid processes obscure one another; then another view taken in slightly (5°) inclined position is necessary to separate them on the plate.

The sagittal view should be taken in such manner that the central ray takes the direction of the German horizontal, i. e., the imaginary line connecting the upper walls of the external auditory canal with the lower orbital margin; it may be taken either in A. P. or P. A. directions. In this view, if properly taken, we will see the pyramids in the lower third of the orbits, the foramen rotundum, small wings, large wings as a part of

the orbital wall, superior orbital fissure, ethmoid bone and cells, and often the sphenoid sinus.

These two views will give us a good general survey of the base of skull. Of the numerous special views cited, 3 are particularly important: (1) The axial view of the middle fossa (Schueller) which should be taken in the submentobregmatic direction. In this view the main structures of the middle fossa are visualized. (Foramina, apices of pyramids, sphenoid sinuses, carotid groove, clivus, and base of the pterygoid process (nasopharynx tumors). (2) The Stenvers view perpendicular to the longitudinal axis of the pyramids. This view gives us a general survey of the pyramids and the outline and details about the inner ear; we can discern the semicircular lateral and superior canals, vestibulum cochlea, internal meatus, apex of pyramids. Often this view has to be supplemented by Schueller and Mayers views of the mastoid part, and of tympanum. (3) The oblique view of the orbit by Rhese modified by Goalwin visualizes the optic canal. It is of diagnostic value only in selected cases. All these views described are necessary for visualization of the base of skull. For the sinuses, particularly of the maxillary sinuses, the visualization of which was poor from the diagnostic standpoint, Mayer uses the cranio-excentric view of Lilienfeld, which projects the sinuses downward on the plate distorting them partially. It has, however, the advantage that all the bony structures of the base of skull (part pyramids) which otherwise obscure the sinuses are projected downward.

Many lantern slides illustrating points in his paper were shown by Dr. Pomeranz.

The paper was discussed by Drs. Charles F. Baker and Erwin Reissman.

In that portion of the meeting devoted to clinical case reports Dr. Henry C. Barkhorn reported "Two Cases of Meningitis Following Sphenoid Sinus Infection".

The first was a 6 yr. old boy with definite signs of diffuse meningitis, traceable at autopsy to nasal infection. Sphenoid sinus on left side, as well as the ethmoids, filled with multiple polyps which were riddled with small pockets of pus similar to that seen on the brain. Mucous membranes of sphenoid and ethmoids thickened and edematous. Right sinuses were also filled with polyps but no pus was seen.

The second case, a woman aged 37, complained November 8 of headache, chills and fever of 1 day's duration. In April she had a double mastoid operation at the Eye and Ear Infirmary which, she says, was repeated 3 times afterward. On admission had temperature of 105°; pulse 144; respiration 34. Appeared very drowsy, vomited shortly after going to bed. November 10, operation. Remaining right mastoid cells removed, angle of the petrosal removed. Middle and first fossa opened but nothing found. Right temporo-sphenoidal lobe explored for abscess but nothing found. Wound left wide open. Had poor reaction. Neck very rigid. Died at 12:30 a. m. November 11, 1929.

Autopsy. Entire left cerebral hemisphere bathed in a thick greenish-yellow pus. At base of brain is a large amount of greenish-yellow exudate especially on frontal and central portion of temporal lobes. All the sinuses on left side, frontal, ethmoid and sphenoid, filled with greenish mucopus. Entire sphenoid bone necrotic and cavernous sinus infected. Internal and middle ears both sides free and clear.

Dr. Wallace Pyle, of Jersey City, presented 3 cases. The first, a machinist, 30 years of age, was seen on May 6, 1929, with the history that in May

1928, while grinding on a machine, something flew up and struck him in the right eye. All the intervening time he was gradually losing vision, and the eye was painful but not red. A New York physician finding an elevated tension, gave him eserine, which did not reduce the tension, so that finally he had a trephine and iridectomy operation in January 1929. He was under treatment until March 4, when x-ray examination showed a foreign body inside this eye. The large magnet was used on several occasions, without success.

"At the time I first saw him there was a granular condition of both upper and lower eyelids, almost like a trachoma, which I considered was a granular conjunctivitis due to protracted use of eserine. I had localization made of this foreign body and found that it was about 0.5 mm. in size, in the principal directions, and was located about 20 mm. back, following the horizontal plane and to the temporal side.

Being anxious to hear somebody's else opinion, on December 12, 1929, I took him to Dr. Sherman who concurred in the opinion that at present this eye had better be left alone.

January 16, 1930, with -1. D. sph. and -1. D. cyl. ax. 135°, his distant vision equaled 20/20+2. The tension was 55 mm.

The second case was a man 25 years old, also a machinist. "Three weeks ago he was struck in the left lower and upper lid by some hot scale, not any of it going in his eye. He was not under treatment with any doctor and with the exception of a little vaseline on the outside of the lids received practically no treatment. When I first saw him in the middle of January, his only complaint was blanching of the lashes on the inner upper-half of his eyelids. Fuchs has very little to say on this subject, except that the white cilia occur as a congenital condition of albinism, and quick blanching is seen in many serious diseases of the eye, trachoma or vitiligo, when it affects a few of the lashes, and in sympathetic ophthalmia of which it is a rare manifestation. This case is of medicolegal interest only."

The third case presented was a boy 17 years old, with extremely yellow-white color and emaciation. Opening his mouth, a large slough on the left tonsil was found. A smear from this slough came back negative for diphtheria and Vincent's angina. Differential blood count: 47,000 white blood cells; 50% hemoglobin; 2,500,000 red cells; color index 1; acute lymphatic leukemia. The day after admission he had his first blood transfusion and a portion of the slough on his tonsil came away. At the end of a week he had a second transfusion. Following this the sloughing entirely disappeared from his left tonsil and he improved in color, action and ability to eat. About 4 days later he developed a small necrotic spot in his soft palate, which, despite local treatment, continued to grow until there was a hole through his soft palate the size of the thumb. After the third transfusion, the edema of the tonsil pillars and uvula was so great that it was almost impossible for the boy to breathe and he could only swallow liquids with difficulty. After the fourth transfusion, the whole soft palate sloughed away, allowing the patient to breathe easier.

Dr. Elbert S. Sherman, in discussion, advised leaving the foreign body in the eye till further symptoms develop. As long as the eye is quiet and the vision is good there is no need of interference.

Dr. Lewis W. Brown pointed out that the blood pictures of patients with pharyngeal ulcerations varies greatly; in some there is an increase of the leukopenia. He felt that the best minds were

of the opinion today that all acute leukemias are one disease, whether lymphatic or myelogenous.

Dr. Henry C. Barkhorn said he felt that the necrosis was a nutritional death following plugging of a blood vessel by a clump of leukocytes.

Essex County Pathologic and Anatomic Society

A committee composed of Drs. Earl H. Snavelly, Paul E. Menk and Sidney C. Keller, have arranged a 6 weeks' course in "Regional Anatomy and Surgical Pathology" in the Amphitheatre of Newark City Hospital, Wednesday evenings at 8.30 p. m. This course is open to members of the society without charge. Other regular medical practitioners desiring to attend the course should apply for membership. The demonstrators and dates are as follows:

Wells P. Eagleton—Head	March 5, 1930
Richard Dieffenbach—Chest	March 12, 1930
Clarence O'Crowley—Kidney and Bladder	March 19, 1930
Max Danzis—Gall-Bladder	March 26, 1929
John Hagerty—Thyroid Gland	April 2, 1930
Francis R. Haussling—Abdomen	April 9, 1930

Newark City Hospital

Dr. Harrison S. Martland, Chief Medical Examiner of Essex County and Director of the Pathologic Laboratories of the City of Newark holds a clinical Pathologic Conference every Tuesday evening from 9 to 11 p. m. in the Pathologic Amphitheatre of the City Hospital. Cases are shown and discussed. The medical profession is welcome to attend.

HUDSON COUNTY

Edward G. Waters, M.D., Reporter

Regular meeting of Hudson County Medical Society held February 4.

Dr. J. Murphy, of Boston, co-discoverer with *Dr. Minot* of the liver treatment of pernicious anemia, delivered the paper of the evening on "Pernicious Anemia and the Treatment of Anemias".

In uncomplicated cases of pernicious anemia 100% are improved or made well by the ingestion of liver. The treatment must be continued in proper amounts of the effective substance if the patient is expected to stay well. It is a disease of remissions, and treatment hastens a remission. Glossitis is one of the outstanding symptoms. Digestive disturbances due to achlorhydria and diarrhea, often with obstinate constipation in intervals, are usual. The central nervous system changes—paresthesias of hands and feet, coldness of extremities, constant numbness of hands and feet, are noticeable after the disease has progressed some time. Later, there are changes in locomotion due to lateral and posterior column changes, giving (1) spastic paralysis with twitching of the extremities or (2) flaccid paralysis either beginning as such or following the spastic stage. One of the distinctive signs is loss of vibratory sense over the long bones.

Laboratory data on the disease differentiates it from other conditions associated with a severe anemia. From gastro-intestinal malignancy, which resembles it closely, the sore tongue, the remissions, and the C. N. S. changes are most important. From aleukemic leukemia with absence of the characteristic leukocytes in the peripheral circulation, it is differentiated with great difficulty,

if at all; progress of the disease and the response to liver therapy are relied upon. Aplastic anemia, which is often confused with aleukemic anemia, shows a lack of activity of all the processes of the bone marrow, in the formation of red and white blood cells, and the blood platelets. In this condition, purpuric spots show early, while in pernicious anemia, they are a late symptom. Sprue, pellagra and tapeworm anemia must be thought of in the diagnosis and ruled out.

When the proper dosage of liver or liver extracts is employed, we may expect remissions in 100% of cases. The proper dose is dependent to some extent upon the individual, but approximately it is $\frac{1}{2}$ lb. liver, or 3 to 4 (or even 5 to 6 for a short time), vials of extract No. 343. This is the daily dose, given in conjunction with a well balanced diet low in fats and sweets. In 5-10 days the blood shows definite improvement. On the fourth or fifth day the reticulocytes begin to appear in numbers, and on the ninth day reach a total representing from 15 to 50% of all of the cells. The reticulocyte effect upon the particular patient determines the result to be attained in the treatment of that patient. For the first 3 or 4 days of treatment, the patient seems less well than formerly. On the fifth or sixth day, however, there is a striking improvement in general well-being, heralded by a marked, ardent appetite. The patient should be given as much to eat as he desires.

Within a month from the time treatment is started, the red blood count reaches a total of 4,000,000, regardless of where it was when treatment was started. Thus, those with the lowest counts to begin with show the most marked advance in that time. Within 2 months, the count should be normal, for both sexes being regarded as 5,000,000. Where treatment was instituted in an advanced case, experience shows that if the blood count is kept normal, there will be no increase in the central nervous system symptoms. In those cases characterized by cord changes with sphincteric disturbances, it is impossible to eradicate pyelitis once it develops, and this constitutes the most menacing complication in the disease, even though the blood be returned to normal. These are the patients with pernicious anemia who die, nowadays. Although the stomach symptoms are alleviated, the hydrochloric acid stays absent. The diarrhea often present clears up. Numbness and tingling disappears, coincident with improvement in the C. N. S. changes, although defective locomotion is rarely if ever, completely corrected. In general, progress is good, and so is the prognosis, if pyelitis does not occur. The other complications are acute or chronic infections, abscesses of teeth or sinuses, cirrhosis of liver, arteriosclerosis, nephritis.

Follow-up treatment is most important. All patients require constant use of liver or its potent extracts, but after considerable treatment it is possible to decrease the dose. Each case is a law unto itself, however, and it is impossible to give any standard dose. The red blood count determines the dose in the individual case, although $1\frac{1}{2}$ lb. of liver or 2-3 vials a week is sufficient. As with the use of insulin in diabetes, any acute infection demands an increase in the dose temporarily.

Concerning the laboratory changes in pernicious anemia, the red cells assume a normal size and shape after treatment. The size is determined by direct measurement or by the hematocrit test, the latter the more practical. For example, if the usual volume is 8.5, in pernicious anemia it is

10-17. With treatments the cell volume returns to normal, the white cell and platelet counts also return to normal.

If the patient is unconscious, or vomiting, with red count under 1,000,000, liver is given by stomach tube, or a small transfusion is given. The latter is avoided if possible, since patients do not respond to treatment as well as when no transfusions have been used.

Dr. Murphy grouped the other anemias into 4 large groups:

(1) Anemias from blood loss. (a) Acute blood loss. Patients who survive the first stage usually recover under any treatment. (b) Chronic blood loss. First eradicate the sources of bleeding. Large doses of available iron (Blaud's) and whole liver, *not extracts*, are used. 60 gr. of Blaud's pills, and liver combined, is best.

(2) Chronic chlorosis. These patients show the characteristics of the old disease known as chlorosis, except that they are chronic. These respond to iron and liver.

(3) Nutritional anemias. (a) Anemia of pregnancy—corrected by proper diet and iron in large amounts. (b) Chronic infections with anemia; treat the infection first.

(4) Anemia with chronic disease—nephritis, cirrhosis, chronic heart disease, leukemia, etc.; no effective treatment.

In using iron, the important factor is the amount, rather than the kind. Blaud's pills and ferrous ammonium citrate are the best.

Paper discussed by Drs. Lathrope, Cosgrove, Braunstein, Pearlstein, Hasking, Barbarito, B. Schwartz, and Jaffin.

The following communication was received from Dr. Warren Coleman:

The resolution which I shall present for your consideration concerns the honor and traditions of the medical profession and the moral and legal obligation of the physician to his patient.

The Regulations of the Volstead Act provide that "All prescriptions for liquor, whether on the official blank, or otherwise must be correctly dated, written in duplicate, both copies signed by the physician, and must contain all the data called for on form 1403, except that he is not required to name therein the druggist or pharmacist who shall fill such prescription." Among the data called for on Form 1403 is the diagnosis of the patient's disease or ailment. This requirement of the Regulations is in direct contravention of the traditions of the medical profession, traditions which have guided the profession for some 2500 years. The Hippocratic oath 480 B. C., imposes secrecy upon the physician in the following terms: "I swear by Apollo the physician and Aesculapius and all the gods and goddesses that whatever I see or hear in the lives of men in the course of my professional practice, whether or not it concerns the illness of the patient, which ought not to be spoken of abroad, I will not divulge."

Some of the physicians in this audience took the Hippocratic oath upon graduation. The Regulations require them to violate it and require all others to disregard our traditions. The Regulations also compel the physician to violate the law of the State of New York. Section 352 of the Civil Practice Act reads as follows: "A person duly authorized to practice physic or surgery or a professional or registered nurse, shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity, and which was necessary to enable him to act in that capacity." This statute was passed by the Legislature in 1828. Mr. Stryker, counsel of the New York State Medical Society has pointed

out that the rule is mandatory, that the physician has no choice whether or not he will disclose the nature of a patient's illness—he shall not be allowed to disclose it. This rule has been consistently upheld by the courts. Yet the Regulations of the Volstead act compel the physician to violate it every time he writes a prescription for whiskey or wine or alcohol.

The following resolution was proposed by the Secretary.

"WHEREAS, The confessions of the penitent to his priest, the communications of the client to his counsel and the confidences of the patient to his physician have been held inviolate from remote ages and have been jealously guarded by the courts, and

WHEREAS, The stubs of all such prescriptions shall be surrendered to Prohibition Commissioners for inspection by them and their clerks, now, therefore

BE IT RESOLVED, that the HUDSON COUNTY MEDICAL SOCIETY hereby voices its protest against those portions of the prohibition laws which deprive the citizen of his age-old right to privacy regarding his diseases and ailments and which compel the physician to betray the confidential communications of his patient.

It was regularly moved and seconded that this be adopted. Carried.

Dr. Henry O. Reik, Executive Secretary of the New Jersey State Medical Society, was called upon for a few remarks. He stressed the necessity for the medical societies to put forth efforts to get rid of commercialism in medicine. He called the attention of the members to the State Journal, which contains many splendid articles. He spoke of the Executive Secretary's office and of the Field Secretary, who had delivered many lectures to school organizations and school teachers along educational lines.

He mentioned the work of the Welfare Committee and stated that they are fully in touch with members of congress and legislature concerning matters of interest to the medical society. He discussed some of the medical bills introduced into the legislature, particularly assembly bill number 93 regulating the practice of surgery, wherein a man must have beside his regular license an additional license after a special course in his specialty.

The doctor felt that medical men should correct this themselves, the proposed bill being too radical.

He stressed the fact that unity of action among medical men was necessary for the best interests of the profession.

The following committee on Post-Graduate Instruction was named by the president: Drs. S. A. Cosgrove, Chairman; J. M. Cassidy, G. P. Curtis, G. Ginsberg, D. Miner, B. S. Pollak, S. Woodruff, R. L. Ballinger, F. McLoughlin.

Jersey City Hospital Staff Meeting

Joseph Binder, M.D., Reporter

The regular monthly meeting of the Visiting Staff of the Jersey City Hospital was held on Thursday evening, February 13, with Dr. C. B. Kelly presiding, and the following members present: Drs. O'Hanlon, Burke, Kelly, Binder, Perkel, Schneckenborf, Winter, Rector, Brophy, Comorato, Woeffe, Perlberg, White, Ruvane, Flichtenfeld, Borshaw, Jaffin, Yachnin, J. Connell, Braunstein, Hasking, De Fuccio, E. Connell, Meehan, Sullivan, Houghton and St. George.

Dr. Doran presented 3 cases:

(1) Male, admitted December 10, 1929. Had

been in auto accident before and was thrown forward so that knees struck the dash-board. First admitted to another hospital for fractured patella. Joint was aspirated and reduction of fracture unsuccessful. X-rays showed an *avulsion of tibial tuberosity and fracture of patella*. Skin injury was first allowed to heal before attempting open operation. At the end of 2 weeks, 2 V-shaped holes were drilled into tibia and a strip of fascia lata was passed through these openings and sutured onto itself to anchor the tibial tuberosity. The patella was sutured in the usual way. On February 13, there was union of patella and union of tuberosity to fibia.

(2) *Ruptured Liver, Traumatic*. Male, 28, in auto accident, thrown against steering wheel November 30, 1928. Upon recovery of consciousness, complained of abdominal pain; rigidity of entire abdomen with marked tenderness in right upper quadrant; evidence of free fluid in abdomen. Operation under local and ether; 700 c.c. free blood in peritoneal cavity; 2 tears in the liver, one on the anterior surface near the falciform ligament 2x1 in., and another on the inferior surface of the liver the same size. Through another incision, a portion of the sheath of the rectus muscle was removed and this cut into several small squares to act as buttons to hold the sutures in the liver. Packing inserted above and below the lacerated liver, and abdomen closed with drainage. Bile drained for 2 weeks. Discharged 5 weeks later. Several months later, i. e., April, 1929, patient readmitted to hospital for observation because of jaundice. Bile in urine. In Jersey City Hospital for 1 month, then went to the New York Medical Center where he will be operated upon next week. Further report of this case will be made at the next meeting.

(3) Man, admitted January 5, 1930. Thrown off motorcycle. Complained of pain in chest; in moderate shock; fractured ribs, left chest, and some tenderness in left upper quadrant. Next day, patient was comfortable. Slight abdominal tenderness until evening, when generalized rigidity and marked abdominal tenderness were noted. Diagnosis of ruptured viscera was made.

Operation under spinal anesthesia. About 500 c.c. free blood and clot was found in abdominal cavity. As incision was in the midline, it was necessary to enlarge and extend incision to the left to expose the spleen. A stellate laceration of an enlarged spleen (twice its normal size) was found. The liver was rough and slate colored. Patient in extreme shock during operation. Intravenous of saline with adrenalin given, with resultant recovery from shock. The wound in the spleen was packed with gauze. Abdomen closed in usual way. During first day postoperative, a blood transfusion was also given. Patient reacted very well and by the sixth day the pulse was between 80 and 100 while the temperature was 99°. Later the incised abdominal wound was infected. This was now cleared up and patient is doing well.

Dr. Burke reported 4 cases:

(1) *Aneurysm of the brachial artery*. Boy, struck by fragment of steel in cubital fossa of the right arm. Taken to another hospital when injured; unsuccessful attempt at removal of foreign body. Few weeks later the arm became swollen while the boy was in swimming. Taken to private physician, who at first thought it might be an abscess. Upon incising it, he recognized the condition and had him admitted to the Jersey City Hospital November 11, 1929. The artery was ligated above its bifurcation into ulnar and radial arteries. Many small collateral arteries had established themselves above the aneurysm, with the

result that ligation did not interfere with nourishment of the forearm and hand. Arm was elevated and electric cradle put over it. Final result—perfect circulation, radial pulse and function.

(2) *Ruptured urinary bladder*. Male, 47, Polish, admitted September 7, 1929, semiconscious. Ambiguous history of alcoholism. Placed in psychopathic ward for day. Examination showed diffuse peritonitis. Operation. Low split right rectus incision; 2 qt. of urine evacuated; peritoneum and viscera normal, except for large tear in the posterior wall of bladder extending from pelvis to fundus. Bladder sutured in layers. Result—good.

(3) *Pancreatic abscess*. Female, 54, Polish. Had 12 children. Always well except 15 years ago when she complained of right upper quadrant pain sudden onset, gnawing and sharp in character, followed by obstinate vomiting for 3 weeks; after which she felt well until 3 weeks prior to admission, August 8, 1929, to this hospital, when she had another attack similar in character to the one just described; the vomiting being coffee-ground in appearance. Pain in right upper quadrant, slight reflex rigidity. Pre-operative diagnosis was *cholecystitis associated with cholelithiasis*.

Operation through right rectus incision showed a diseased gall-bladder which was $\frac{1}{4}$ in. thick, and adherent to surrounding tissues, i. e., a pericholecystitis. At the cystic duct the field suddenly became flooded by about 1 pt. thick, creamy, odorless pus which seemed to come through the foramen omentalis. Removed by suction. Stomach was normal. Sutured part of the abdominal incision healed by primary intention. Gradual convalescence and patient now doing well.

(4) *Retroperitoneal gangrenous ruptured appendicitis*. Man, 26, with 3 days history of appendicitis, high temperature and leukocyte count. Upon opening abdomen, about 1 qt. thick pus welled up from the pelvis. Appendix could not be visualized. The cecum was thick. Retroperitoneal long appendix, ruptured and gangrenous, was found with its tip reaching as high as the costal margin. The entire ascending colon was mobilized in order to get the appendix out. One month later the patient was discharged in good condition.

Dr. Commorato: *Angioneurotic edema and urticaria due to focal infection*. Three females, between the ages of 20 and 30 with very marked oral sepsis, complained of large blotches and wheals, which were very itchy and painful. Under calcium chloride therapy and adrenalin, followed by extraction of the dental foci, these cases cleared up.

A man, complaining of angioneurotic edema, did not have complete relief from this condition after extraction of all the teeth in the upper jaw. He felt as though he were choking. Upon examination of the lower jaw, it was decided to remove the gold filled teeth. This resulted in an immediate clearing up of the throat and skin manifestations. Streptococcal organism was recovered from these foci on culture.

During the past 2 years, there were 3 cases of gall-bladder disease with marked urticarial manifestations. Recognizing that oral sepsis played an important part in the manifestation of urticarial phenomena, the teeth were removed prior to cholecystectomy. Extraction of the teeth at first resulted in an exacerbation of the urticaria, followed later by only temporary relief. This could not be attributed to the food preceding the cholecystectomy because the patients were on liquids only. Removal of the gall-bladder also resulted in an exacerbation of the urticarial manifestations. However, with calcium chloride and adrenalin therapy there was complete clearing up of the skin

esions, with no further recurrence even though the patients were later placed on a general diet.

These 3 latter cases were followed up for 2 years with no recurrence of the lesions. The etiologic relationship can only be shown by animal experimentation, using the streptococci recovered from the patient and injecting same into the animal to produce the same lesion. But we can only offer clinical cases and observations to prove that our cases were due to bacterial (foreign) proteins, by the behavior of the lesions following every extraction of the teeth and their failure to clear up until the secondary foci, in these cases, the gall-bladder pathology, were removed. We are of the opinion that a sensitive person reacts to a foreign protein and that in our cases the foreign protein must have been bacterial in origin. This substantiates the theory of focal infection preached by Dr. A. Haskings for the past 10 or more years. We must remove all foci of infection, primary and secondary or our removal will not be satisfactory.

Dr. Jaffin: A. W., female, white, 18 years old, clerk, admitted complaining of weakness and hemorrhage. Subject to nose bleeds for past year. About 7 months ago noticed subcutaneous hemorrhages with little or no trauma. Menstruation at first normal, has recently become prolonged, the last period lasting 23 days, with cessation for 2 weeks and recurrence of flow which had continued for 2 weeks. She was still flowing on admission to hospital. Bleeding from gums began 2 months previous to admission. Stools dark. Patient had been in bed 2 months. Transfused prior to admission.

Very pale, fairly nourished, well developed white girl, lying quietly in bed, rational, listless and drowsy, appears chronically ill. Teeth blood stained. Gums bleeding, mucous membranes pale, tonsils hypertrophied, systolic murmurs heard all over precordium, and slight edema of ankles. Eye-grounds show retinal and pre-retinal hemorrhages with anemic pallor.

Blood count on admission: R.B.C. 1,200,000; Hemoglobin 9% (Sahli); W.B.C., 13,600; platelets, 81,000; polys 77%; small lymphs. 18%; large 4%; transitional 1% poikilocytosis present. Patient transfused on admission. Four days after admission coagulation time $3\frac{1}{2}$ minutes; bleeding time 1 hour and 20 minutes. No clot retraction.

Patient transfused again 1 week after admission; R.B.C. 2,150,000; hemoglobin 28%; platelets 35,000. Eight transfusions in all were performed. The range in repeated blood counts showed the following: Platelets, 38,000 to 175,000; R.B.C., 2,000,000 to 2,150,000; B.B.C., 9200 to 50,500; hemoglobin 9% to 37%.

Urine: On admission loaded with red cells; subsequently negative except for trace of albumin.

Course: Febrile, bleeding gums; vaginal bleeding; petechial eruption. On October 8, 1929, transferred to surgical service. Splenectomy, preceded by blood transfusion, was done because it was felt that this was a *thrombocytopenic purpura*. Post-operative course stormy and on seventh day pneumonia developed. October 25, 1929, evidence of rigidity of neck and hemorrhage from right ear. Impression at this time was that patient had a septic meningitis; spinal fluid under slight pressure and clear, no organisms found.

Patient expired October 26, 1929. It might be added that this patient had been on liver extract, and liver with her meals.

Dr. Jaffin: "Aplastic anemia with symptomatic purpura". W. H., white, male, 30 years old, fireman, admitted December 7, 1929, complaining of bleeding gums, weakness, pallor and palpitation, and red blotches on the face and legs.

Two months prior to admission, had an upper respiratory infection. A few days later noticed red blotches on his face. These lasted a few weeks. Later, bluish swellings appeared on his legs, and at this time he complained of arthritic symptoms. Bleeding from gums began 3 weeks before admission. Lost 40 lb. in weight in 2 months. Weakness and pallor has been progressive, also palpitation. Family and past history essentially negative.

Subconjunctival hemorrhage over left eye, marked pallor, bleeding gums, faint systolic murmur at apex. Eye-grounds showed retinal anemia and pale optic nerve head. Very large retinal and pre-retinal hemorrhages. No excessive vascular sclerosis. No exudation into retina.

Blood count on admission: R.B.C. 1,230,000; hemoglobin 37%; W.B.C., 4000; polys, 37%; lymph. 63%; platelets, 46,000; bleeding time, still bleeding after 33 minutes; coagulation time $3\frac{1}{2}$ minutes; clot retraction—none after 24 hours. Tourniquet test, negative. Urinalysis essentially negative, except on one occasion when few R.B.C. were found. Wassermann blood cultures negative. Stools, no occult blood. Subsequent blood counts revealed much the same picture. Platelets at best were 256,000; hemoglobin 61%; R.B.C. never above 1,910,000; color 1+; W.B.C. never above 6600. One week after admission tourniquet test was positive and repeatedly so thereafter. Bleeding varied from 33+ minutes to 2½ minutes. Clot never retracted.

Treatment—Repeated transfusions (6), liver extract and liver with meals.

Course—Febrile. Purpuric spots came in crops. Spleen never palpable. Gums bled obstinately and at one time he had a large infected blood clot on the gum near a molar tooth on one side. Frank hematuria several days before his death on January 28, 1930.

Drs. Perkel and Burke reported a case of "duodenal looping due to extensive adhesions." Male, 44, mechanic. For past 20 years had intermittent attacks of sudden pain in upper epigastrium, pulling sensation, nausea, dizziness and fainting. Relieved by vomiting. Attacks lately getting more severe and frequent. Operated on 2 weeks ago for chronic appendicitis, but symptoms still persisted. G. I. series and fluoroscopy showed definite looping of second portion of duodenum, i. e., an extra flexion of duodenum; spastic transverse colon and colonic stasis.

On opening the abdomen, it was noted that the gall-bladder was diseased and plastered down on the duodenum, which was looped and held down by cob-web adhesions. After blunt dissection the gall-bladder was freed, but not removed, and then the loop was freed; the duodenum resumed its normal horseshoe shape. The wound healed by primary intention. It is very possible that new adhesions will form, but one does not know if it will again involve the duodenum. Few cases of this type have been noted in the literature.

After discussion of above cases, the meeting adjourned to a collation in the hospital dining room.

Clinical Society North Hudson Hospital

J. Africano, M.D., Reporter

The regular monthly meeting of the Clinical Society was held Tuesday, February 11, with Dr. H. Comora acting as chairman. Report for the month of January was read by Dr. Tannert: total discharges, 355; deaths, 33, of which 14 were surgical, 14 medical, 3 pediatric, and 2 new-born; 6 autopsies were performed. A detailed labora-

tory report was also given. Dr. Selinger again reminded the staff of the dinner this month. Mr. John McConnell, Superintendent of the Hospital, spoke very eloquently concerning recent alterations and improvements; he emphasized the importance and advantages of a training school and home for nurses, and heartily thanked the physicians for financial assistance given freely in the past, whenever occasion required, and promised his full coöperation in any matters undertaken by the staff.

Statistical Review of Morbidity and Mortality in 620 Cases on the Obstetric Service, 1923 to 1929

The purpose of this paper is to analyze the fetal and maternal morbidity and mortality of 620 cases in the ward and private services of Dr. D'Acerno and Dr. Kolb for the years 1923 to 1929 inclusive; with a study of complications and operative procedures, and comparison of morbidity and mortality of those patients receiving prenatal care with those patients not receiving such care for the years 1927 to 1929, and where possible to consider late postpartum complications.

The number of cases showing some abnormality was 246, or 40.5%. The combined fetal and maternal morbidity was 13.1%, of which the fetal was 11% and the maternal 2%. Operative procedures were performed in 20% of cases. Patients who received prenatal care (182) showed only $\frac{1}{2}$ the morbidity and mortality as those without such care. The late postpartum complications numbered 15; this material was unsatisfactory because of lack of coöperation of the patients.

The following is an enumeration of the complications of pregnancy in the order of their incidence: premature labor, secondary uterine inertia, toxemia of pregnancy, contracted pelvis, arrested occiput posterior position, breech presentation, placenta previa, puerperal infection, postpartum hemorrhage, adherent placenta, premature separation of placenta, ruptured uterus, transverse presentation, prolapsed cord, cardiac disease, pelvic abscess, axillary adenitis and Bartholinian abscess.

Considering premature labor first, we found this the factor causing highest morbidity, 20.2% of the cases, and the greatest fetal mortality, 47 out of a total of 50 cases, or 94%; causes of premature labor were unknown in 1/3 of the cases; the known causes included toxemia of pregnancy, placenta previa, separation of placenta, and prolapsed cord. The next common complication was secondary uterine inertia, which was terminated by forceps delivery; the rule followed by the staff was to apply forceps in cases where the patient with a fully dilated cervix did not deliver after 2-3 hr. severe second stage labor pains—these cases numbered 42, or 17% of the morbidity; there were no maternal or fetal deaths. Toxemia of pregnancy numbered 33 cases, or 13.4% of the morbidity, and was responsible for high fetal and maternal mortality, 39% and 12% respectively, of 13 fetal and 4 maternal deaths; the types encountered were: eclampsia, 13 cases; preëclampsia, 10; pernicious vomiting of pregnancy 2; kidney complications, including acute or chronic nephritis, pyelitis, and myocarditis, 8.

Briefly considering causes less frequent than the 3 just discussed, we note that: Contracted pelvis complicated 26 cases, or 10.5%, with 15% fetal, and 4% maternal mortality. Arrested oc-

ciput posterior position, 16 cases, or 6½%, with 12.5% fetal mortality; there were no maternal deaths, but a severe third degree laceration complicated one delivery. Breech deliveries 15 cases, or 6%; more than $\frac{1}{2}$ of these delivered spontaneously with only 1 fetal death from asphyxia, while 7 cases suffered from impaction of the breech or from secondary uterine inertia so that podalic extraction was performed, with 1 fetal death. Placenta previa 14 cases, or 5%, with a high fetal mortality of 61%, and maternal mortality of 15%. Puerperal infection, 13 cases, gave a morbidity of only 5% and only 2% of the total number of cases reviewed; also, 2/3 of these were infected following delivery at home, while 4 cases followed delivery in hospital and were mild cases, all with a history of operative interference. Postpartum hemorrhage 7 cases, without mortality; the causes ascribed were secondary uterine inertia and retained placenta. Adherent placenta 6 cases, or 2.4%; the placenta removed manually in all cases, and no deaths occurred. Premature separation of placenta, 5 cases, or 2%; no maternal deaths, but 100% fetal mortality. Ruptured uterus, 2 cases, with 1 death. Transverse presentation, 2 cases, no mortality. Hydrocephalus, 2 cases, with 1 maternal death and 2 fetal deaths. Prolapsed cord, 2 cases, with 2 fetal deaths. Cardiac disease, 2 cases, with 1 maternal death. Axillary adenitis, rupture of an old pelvic abscess, and a Bartholinian abscess each complicated 1 case, without mortality.

Discussion of Operative Procedures

Forceps applications numbered 65, of which 42 were for uterine inertia, 14 for arrested R. O. P., 3 for dry labors, and 1 each for face presentation, brow presentation, unengaged head, and tetanic contraction of the uterus; in all there were only 3 fetal deaths, or 4.6%.

Cesarean section was done 19 times; in 13 for contracted pelvis, in 2 cases for placenta previa, and in 1 case each for hydrocephalus, rigid cervix, amputation of the cervix, and tetanic contraction of the uterus; the maternal mortality was 2, or 10%; vaginal cesarean was performed for toxemia in 3 cases, once for placenta previa, and once for rigid cervix; of these 3 cases, 1 died from toxemia 2 days postoperatively, and another (placenta previa case) from hemorrhage a few hours after operation.

Version and podalic extraction, 8 cases, 3 fetal deaths. Podalic extraction for breech, 8 cases, 1 fetal death. Induction of labor with bags, 8 cases, 4 fetal deaths. Manual removal of retained placenta, 6 cases, no mortality. Craniotomy, 5 cases, 5 fetal and 1 maternal death. Packing of uterus for hemorrhage, 4 cases. D. & C. for therapeutic abortion, 2 cases. Pubiotomy, 1 case.

The results of prenatal care are clearly shown when the morbidity and mortality among such patients is compared with those not having had the benefits of prenatal clinic; 182 patients seen in the clinic had only 34% morbidity (complications), and 2.1% mortality, as compared with 179 patients without prenatal care having 65% morbidity and 4.2% mortality.

The figures of late postpartum complications were unsatisfactory because the majority of patients did not return for postpartum care, but a few patients did return for treatment of some abnormal condition following labor, 15 in all, 4 for unhealed lacerations of the perineum, 2 for prolapsed uterus, 2 laceration of the cervix, 2 breast abscess, 4 late puerperal bleeding, due

in 2 cases to subinvolution of the uterus, and in 1 case each to organized placenta tissue and to vesicocervical fistula following craniotomy. Conclusions cannot be drawn from such few follow-up cases.

Metastatic Carcinoma of the Hip

Dr. Terk

E. R., male, white, aged 50, tailor, born in Italy, admitted to the hospital December 18, 1929; died January 11, 1930, complaining for 7 months of pains in the epigastrium, dull in character, radiating to both sides, and aggravated by intake of food. Appetite very poor; very constipated; marked dyspnea after exertion; edema of both ankles and scrotum, especially after being up and about for any length of time; voids but small quantities of urine; no frequency or dysuria. Lungs clear except for a few crepitant râles at left base. Heart sounds of poor quality and irregular. Liver markedly enlarged, and slightly tender. Edema of abdomen, and scrotum. Prostate slightly enlarged.

Urine showed a trace of albumin. Wassermann negative. Blood count: Hb. 77%; R.B.C.: 4,100,000; W.B.C.: 8900; P. 70%. On account of the many gastric symptoms, radiographic examination of the gastro-intestinal tract was done, but proved negative.

Progress. A few days after admission patient complained of shooting pains down the right past 3 years and been treated for sciatica. The pain continued despite treatment, so a roentgenogram of the pelvis was taken, and it showed localized areas of bone destruction in the right ischium and ascending ramus of the right pubic bone. Condition became worse; fluid in the abdomen, scrotum and thighs increasing. On January 11, 1930, the temperature shot up to 104°, and patient sank into coma and expired at 11 a.m.

Dr. Braunstein, at the autopsy, chiselled away a growth which he diagnosed grossly as a sarcoma, possibly telangiectatic, but which on section and microscopic examination proved to be a metastatic carcinoma; there was no lymph-node enlargement in thorax or abdomen, nor any growth in any other organ suggesting a primary focus, excepting the prostate which showed a small amount of carcinomatous tissue; the thyroid gland might also have acted as a primary focus but there were no symptoms or signs referable to that organ.

Dr. Klaus mentioned the adrenal and the breast as other possible primary sites, and said that very often the primary growth is so small as to give no signs of its presence till a relatively large metastasis appears; in this case there were no symptoms referable to the genito-urinary system. He invited the physicians present to examine a patient now in the hospital who has a huge growth in the sacro-iliac region, a recurrent sarcoma about 13 in. diameter—this case will be reported later.

Dr. Broeser advised radiogram of the pelvis in all cases of obscure pain in the sacro-iliac region.

Dr. Kuhlmann has, in his orthopedic experience, continually run into cases with pain referred to the epigastrium, suggesting ulcer or chronic appendicitis, which were in reality tuberculosis of the spine.

Rheumatic Pericarditis

Dr. Barasch

S. D., male, aged 14, entered the hospital on January 21, 1930, complaining of compression over the sternum, and a hacking cough. Several attacks of quinsy and frequent attacks of sore throat between the years 7-10. Had an attack of rheumatic fever at the age of 10, which lasted for 5 weeks.

Present illness began 9 weeks before admission, with pain, redness, swelling and loss of function in one wrist; 3 days later the shoulder on the same side was involved; during the first 6 weeks the opposite wrist and shoulder, sacro-iliac joints, knees, and finally the ankles, became involved. About 1 week after the joint symptoms subsided, began to complain of a feeling of oppression over the sternum, with a hacking unproductive cough.

The positive findings were: Tonsils small, fibrotic and buried. Presystolic thrill at the apex. On percussion the apex was found to be 8 cm. from the midsternal line. The oblique diameter was made out to be 15 cm. Heart sounds were of good muscular quality, rapid in rate, but regular in rhythm and force. Presystolic and systolic murmurs at the apex. Second pulmonic sound accentuated. In the third interspace to the left of the sternum, a to and fro murmur could be heard with the patient holding his breath. Examination of the extremities showed clubbed fingers.

Laboratory findings: Blood count showed a leukocytosis of 16,400, with 70% Polys., and Hb. 65%. Five days later the count was 12,900. Urine and blood culture proved negative.

A diagnosis of rheumatic pericarditis with effusion and mitral stenosis was made. The patient was put to bed at absolute rest. Icebag to precordium. Salicylates were ordered and also tr. aconite, 2 minims every 4 hours in an effort to slow the heart.

Roentgenogram taken January 22, showed pericardial effusion, and obliteration of all the cardiac curves. Fluoroscopy Jan. 26 showed diminution of the effusion on the right. Another Roentgenogram Jan. 31 showed further reduction in the size of the cardiac shadow.

Patient's course in the hospital was uneventful. Temp. ranged between 99° and 101°, and became normal 3 days before discharge. Pulse rate came down from 130 to 90. Resp. decreased from 36 on admission to 20. After being at rest for 1 day, the feeling of compression over the sternum subsided and the cough was practically absent during his stay. Swelling of eyelids subsided completely after 3 days. Patient discharged as improved and referred to family physician.

DISCUSSION

Dr. Barasch demonstrated the x-ray plates, which showed decrease in size of the diameters of the heart from the time of admission to discharge. Dr. Stein believed the stay of the patient in the hospital, 10 days, was rather short. The question of removal of the tonsils was extensively discussed by Drs. Comora, Selinger, Pagliughi and Broeser: Like the appendix, if the tonsil is diseased it should be removed, irrespective of size, it being a question of infection, adhesions, secretion in the crypts, the local and general symptoms caused, its general pathology, the findings on palpation, etc. If there is a history of rheumatism the tonsils should be removed.

The Academy of Medicine, New York City, in comparing 20,000 tonsillectomized children with a similar number of children with retained tonsils, reported that the latter were more susceptible to upper respiratory infections and to rheumatism than the former group. The importance of adenoids must not be forgotten; they are soft, spongy glands situated in a better position than the tonsils for absorption of bacterial toxins, and hence should be removed also. Dr. Martzowka cited from personal experience 4 rheumatics in one family, 3 of whom were improved following tonsillectomy, while 1 died without tonsillectomy being performed.

Rupture of Cyst of Spleen

Dr. Hekimian

Rupture of the spleen is not uncommon following trauma. Countries with unchecked malarial infection are said to have many cases of ruptured spleen due to slight trauma or fall.

Cysts of the spleen are classified into parasitic and nonparasitic groups. In the first group, *Echinococcus* is the only important cyst. It is a rare condition, only 2-3% of *Echinococcus* infections involving the spleen. Among the nonparasitic variety, another cyst of rare occurrence is the dermoid, with contents characteristic of dermoid cyst elsewhere in the body. The most common nonparasitic cysts are: (1) Large unilocular cyst, with connective tissue wall. (2) Small multiple cysts, which have no clinical significance. (3) Innumerable fused cysts involving the whole organ. This type is very rare, and has the pathology of polycystic kidney.

Cysts of the spleen are usually found between the ages of 20-40, more common in females, especially following pregnancy. Among possible factors in the etiology of large multilocular cysts of the spleen are considered: (a) hemorrhage, traumatic or secondary to degenerative changes in blood vessels, syphilis as the chief underlying cause; (b) embolism or infarction; (c) twisted pedicle of a "wandering spleen".

Hemorrhagic cyst formation occurs in the vicinity of the hilus or at the subcapsular area. Hemorrhage into the same area may have repeated exacerbations. Pressure of the hemorrhagic mass will result in the formation of dense connective tissue capsule as a cyst wall; also pressure atrophy and fibrosis of the whole organ. The cyst sometimes is large enough to cause mechanical disturbance in the abdominal cavity. The organ may remain free, but more likely will be bound down to the neighboring organs with extensive adhesions.

Splenectomy is the treatment of choice. In few instances dissection of the cyst has been done, or a more protracted form of treatment of drainage and packing has been resorted to, where extensive adhesions have made splenectomy unsafe.

G. M., male, aged 25, Syrian, born in Asia Minor; 3 yr. in this country. Family history negative. No history of malaria; possibly a light attack of typhus 11 yr. ago. Does not remember any accident or trauma in the past. Venereal denied. Habits good. On Dec. 26, 1929, at 10 a. m., he fell flat on his abdomen on the icy sidewalk. A sudden sharp pain in the abdomen made him unable to get up. He was carried into his home and given supportive treatment, opiates, ice-bag and adhesive strapping. He was seen by me the next morning; pale and anxious in appearance; skin cold and clammy; tongue dry, no external signs of injury to the head; heart sounds

regular and faint; pulse rapid and of poor volume; abdomen not distended, soft with slight rigidity in the R. U. Q.; liver, spleen and kidneys not palpable; shifting dullness on both flanks; no blood in voided specimen; temp. 101°; pulse 100; resp. 18. The temperature rose suddenly to 105°, with corresponding rise in pulse, following a severe chill. Diagnosis of rupture of the liver or possibly spleen was made and the patient was removed to the hospital.

Blood: Hb. 80%; R.B.C.: 4,744,000; W.B.C. 17,000; Polys. 83%; Lymphs. 14; Monos and Trans. 2; Eosin. 1; no pathology of R.B.C. Urine showed a very faint trace of albumin, rare hyaline and coarse granular casts. Blood was type III.

Operation: Right rectus incision. Peritoneal cavity was found full of dark brown serosanguinous fluid. Liver and alimentary tract normal. Exploration of the spleen revealed a large organ firmly adherent to the diaphragm and neighboring structures. There was a large tear through the upper pole, leading into a cavity within the spleen, occupying a position corresponding to the pelvis of the kidney. A large thin and very friable white membrane was found protruding through the tear. Splenectomy was decided upon and performed with much difficulty, due to extensive adhesions and also to the right sided incision. Intravenous glucose and stimulants had to be administered before the abdomen was closed. He received a second intravenous glucose before the transfusion was ready, when he received 650 c.c. of whole blood.

Pathologic report: "The specimen consists of a spleen that measures 20x12x4cm. Marked notching in the midportion that extends about 7 cm into substance of the spleen. The capsule of one surface is greatly thickened and forms a thick-walled cyst that has previously been emptied. Its inner surface is white and wrinkled. The spleen on section presents a soft homogeneous red pulp. Histologic section of the spleen tissue shows congestion and fibrosis. The capsule is greatly thickened and largely composed of hyalinized fibrous connective tissue. There appears to be an endothelial lining in places. Pathologic diagnosis: Simple cyst of spleen".

The post-operative course was uneventful except for persistent hiccough, which resisted most measures but finally subsided after repeated gastric lavages. At the end of the first week the skin incision broke down, with serosanguineous subcutaneous discharge, changing to purulent in a few days, temperature ranging between 99° and 100°. He was discharged as cured on the seventeenth day.

Rupture of Liver

Dr. Tannert. (From Service of Dr. Lange)

J. S., male, white, admitted Jan. 4, 1930, after having been struck by auto. Bleeding from nose. Contusions of head and symptoms of concussion. Patient complained next day of pain in the right upper quadrant of the abdomen and right chest. Abdomen was rigid and tender. Diagnosis of ruptured viscus made. Laparotomy revealed a laceration 6 in. long, at the superior surface of the right lobe of the liver, extending over to the left border. A large quantity of free blood in the peritoneal cavity. Eleven strips of packing introduced between the liver and diaphragm. 700 c.c. 5% glucose solution given.

On Jan. 6 there was a bloody drainage from the wound. Pulse rapid and of poor quality. The discharge became greenish 2 days later, but the

general condition improved. Jan. 14, 1930; temp. rose to 103°; slight cough; breath sounds diminished in the right lower lobe; discharge increased in amount and had a B. coli odor. Roentgenogram Feb. 7 showed a pneumonic consolidation at the right base; bronchial breathing and diminished vocal fremitus.

The patient is at present being observed. The temperature may be accounted for by either the best condition or a liver abscess. Exploration for liver abscess is being considered.

DISCUSSION

Dr. Lange stated that owing to the fact that the rent in the liver was away up under the diaphragm it was impossible to suture, and hence it was packed, the temperature may be due to pent-up pus under the diaphragm and it might be advisable to make an opening from above.

Dr. Swercy, now in charge of the case, announced that he will aspirate tomorrow; an x-ray plate showed a "pneumonic process", and the general condition of the patient is good.

Dr. Klaus' experience in these cases is that it is advisable to wait till something more definite turns up before interfering and producing a leakage to the pleura and inviting more disaster; he cited a similar case where after proscratination a perinephritic abscess developed, which was drained, with recovery of the patient.

Lymphosarcoma of the Appendix

Dr. Tannert

J. W., admitted Jan. 2, 1930, with diagnosis of acute appendicitis; temp. 102°; W.B.C.: 12,600; polys. 93%.

Operation—No free fluid or pus present. No adhesions in region of appendix. Right kidney considerably enlarged, about 5 in. long with the upper pole pointing toward the median line; seemed fixed and somewhat harder than normal. At that point, it was thought that the symptoms were entirely due to the kidney condition, but upon isolating the appendix it was found to be enormously enlarged—5-6 in. long and about 1 in. diameter. At its cecal end, the appendix was normal in appearance so that the entire mass seemed to be attached by a pedicle. There were no signs of acute inflammation. Appendix removed in the usual manner. Recovery was uneventful and the patient was discharged with instructions to return for examination of the kidney condition.

The pathologic report reads: "Section shows replacement of the mucosa with lymphoid tissue which extends into the muscularis. There are large areas in which the cells seem to be proliferating rapidly and are irregularly arranged. This process is suspicious of new growth, particularly early lymphosarcoma. The serosa is also infiltrated with lymphoid tissue. Pathologic diagnosis: Lymphoid hyperplasia, suspicious of early lymphosarcoma".

Abscess of Abdominal Wall from Perforating Foreign Body of Colon

Dr. Peters (from the service of Dr. Lange)

J. R., male, aged 55, admitted Jan. 10, complaining of pain and a mass in the epigastrium. About 4 months ago, began to experience an uncomfortable feeling in the abdomen after eating—a feeling of fullness which passed away in about

2 hours. Three weeks ago he felt a mass on the inside of the abdomen around the epigastric region, accompanied by a sharp and dull pain over the same area; he had to lie on his left side for if he lay on his right side, the mass seemed to move in his abdomen and embarrass respirations. A week ago he could see and feel this mass. Patient vomited several times after eating. Has lost 10 lb. in the last 2 weeks and feels very weak.

Physical Examination: Mass seen in the right epigastric region extending beyond the midline; hard, no fluctuation or abnormal discoloration of skin, not movable on respiration, about the size of an orange and tender. Later the skin over the mass became red, and the mass was becoming larger. Temp. ranged between 98.6° and 100.4°. Wassermann 4 plus. Radiograph of the gastro-intestinal tract disclosed cecal adhesions, retention and stasis; the barium meal did not progress beyond the proximal end of the transverse colon. Due to location of the mass, slight temperature and inflammatory signs, a diagnosis of gall-bladder pathology was made, and, secondly, carcinoma of the colon.

Incision into the mass revealed the muscles to be edematous and a small amount of pus was found underneath the muscle. Exploration revealed a normal gall-bladder, stomach and liver. Further exploration disclosed a brush bristle in the abdomen and abdominal wall. The bristle was 3½ in. long.

The patient made an uneventful recovery and was discharged as cured.

Acute Encephalitis Lethargica

Dr. Dalven

W. P. S., male child, age 2, admitted Jan. 7, with complaints of cough, vomiting, tremor of hands and drowsiness. Onset Dec. 25, 1929, when he had a cold and coughed a little. He also had a sleeping spell that day. He slept during the day and remained awake at night. For a few days the cold and drowsiness appeared to be lessening, when on Jan. 6 the drowsiness returned and in addition he showed periods of sudden rigidity of the entire body with the legs straightened out and arms flexed and rigid. Developed a staring look on the same day and has not slept since. Patient vomited each time he was given nourishment.

Pupils normal. No nystagmus. Ears: Inflamed Shrapnel's membrane with slight edema and inflammation of tympanic membrane. Mouth. Difficult to open jaws. Tonsils enlarged but not inflamed. No rigidity of neck. Heart and lungs normal. Extremities: Coarse tremor of the left forearm with hand closed tightly. Similar tremor of the right shortly after. Reflexes: K-J slightly hyperactive on the right side and a positive Oppenheim; otherwise negative. Temp. varied between 103.2° and 106.6°.

Developed a horizontal nystagmus to the left in both eyes, Jan. 8; his condition became extremely poor; was given glucose intraperitoneally; died at 4.25 p. m.

Autopsy. The gross pathologic lesions were irrelevant except for a few congested organs. Microscopic description of the brain: Sections of the cerebrum and thalamus show edema and scattered invasion of round cells; also some perivascular infiltration. The picture is not entirely characteristic of encephalitis. Anatomic diagnosis: Acute encephalitis.

Bayonne Hospital Clinical Conference

M. Shapiro, M.D., Reporter

Regular meeting of the Clinical Conference of Bayonne Hospital was held Monday evening, February 3, at 9.15 p. m.; Dr. Donohoe, Chairman, Dr. Shapiro, Secretary.

Dr. Thum reported 4 cases of mastoiditis.

(1) Young girl who had been ill for few days with earache, slight temperature, drums bulging. On incision found a serum which in a few days became purulent. Developed postauricular tenderness, temperature 103.4° and rigidity of the neck. Later severe meningeal symptoms. On operation found infection in both mastoids. Patient made uneventful recovery. This case represents rapid fulminating type.

(2) Child with bulging ear-drums. Both drums incised. Developed postauricular tenderness with no edema. Temperature 99° and child was playful. At the end of 3 weeks showed definite signs of mastoiditis with swelling behind both ears. Double mastoidectomy and uneventful recovery.

(3) Child, ill with grippe for 3 weeks, developed earache with discharge on right side. On date of admission had developed headache, backache, rigidity of neck, diplopia, and tenderness over mastoid tip. These symptoms were suggestive of Gradenigo syndrome. Opened up the mastoid and found it full of granular tissue and pus; exposed down to lateral sinus. Spinal tap showed fluid under pressure with large number of lymphocytes, a few pus cells and a trace of sugar.

(4) Man, aged 35, complained of running ear for 2 weeks. Tenderness over the mastoid antrum. Incised the drum and after few days these symptoms disappeared. The drum, however, was still swollen, canal narrowed and tenderness began to extend toward tip. One week later the tenderness extended further back. There was stiffness of the neck and the patient consented to an operation; which revealed perisinus abscess. The lateral sinus had to be exposed in its entirety.

Drs. Larkey and Pinkerton presented the case of an infant 3 days old, normal delivery, no instruments used, with inability to swallow. Gavage was performed and child vomited. Radiograph showed enlarged thymus extending almost to the axillary line and to about the fifth interspace adjacent to the heart. The barium pictures showed a pylorospasm. Treatment will be deep x-ray therapy.

Dr. Harvey presented a case of "malignant endocarditis" from the service of Dr. Weiss. Female, age 13, ill for several days with nosebleed each morning and with pain in upper right quadrant of abdomen. Seen by a physician December 28 with severe pain about left knee radiating to left hip and back. December 30, complete paralysis of left leg, but pain persisted after onset of paralysis. Sudden onset of paralysis of left arm on January 5, with mouth drawn to right on smiling.

On admission to hospital, January 9, listless and apathetic. There was flaccid paralysis of the left arm and leg; pain of left hip made worse by motion or pressure; pupils moderately dilated, regular in outline and equal, reacting somewhat slowly to light and accommodation. The tongue protruded in the midline without tremor.

Heart enlarged to left; apex beat palpable 1 in. external to nipple line; double rough systolic murmur at apex; action regular; rate 90-100. Blood pressure, 110/78. Septic temperature, averaging about 100° with excursions between 98° and 103°; pulse 90-100, good quality. Respirations about 22.

Diagnosis: Malignant endocarditis, followed by cerebral embolus.

Dr. Morgenstein reported a "polyglandular syndrome" in a patient admitted to the hospital complaining of vague pains all over body. White, middle aged female, aged 44, fairly well nourished. Face showed myxedematous features; pale mucous membranes; sluggish pupils; widely separated eyebrows; palate high vaulted; deep sternal notch with impalpable thyroid; and generalized scarcity of hair. The liver was enormously enlarged down to the iliac crests. Skin smooth, shiny and flabby; small stubby hands; lower extremities somewhat edematous; reflexes normal; pulse 85-95; respiration 20; temperature never above 100°. Hemoglobin upon admission 28%; a few days later 53%. Red blood cells 250,000; later 2,640,000. In bringing out the diagnosis, cirrhosis of the liver, cancer and syphilis were ruled out by all. The diagnosis of polyglandular disturbance was made and since all the epiphyses are closed it was decided that treatment would be of no avail.

Dr. Morgenstein presented x-ray pictures of "spontaneous pneumothorax". Patient lifting heavy weight felt sudden sharp pain in chest.

Dr. Jaffin, in discussing this case, showed several films of localized pneumothorax, both acute and chronic.

Dr. Weinger reported cases from the service of Dr. Woodruff.

(1) Chas. M., aged 46, admitted Feb. 28, 1929, complaining of hematuria for 1 day. Cystoscopy negative. Urination 8 times in day, 3 times at night. Some pus cells and some blood in urine. Positive Wassermann. On second admission, May 14, chief complaint was hematuria with pain in right kidney region. Examination at that time showed pus, blood and granular casts in urine, and 4 plus Wassermann. Unable to do cystoscopy because patient did not cooperate.

Cystoscopy was done November 5 under anesthetic and we found many blood clots in bladder and right urethral orifice blocked by an organized blood-clot coming from right kidney. Washed with saline several times; for 4-5 days kept on washing with saline with the idea of dissolving blood-clots. On November 20, we did a pyelogram; clot was not present in the urethral orifice and we were able to pass catheter. Indigocarmine injection showed an output from the right kidney 8 minutes, left kidney 3½ minutes. X-rays showed a filling defect in the kidney pelvis. On November 2 right kidney removed. Pathologic report came back as "hypernephroma arising from the adrenal cortex". Uneventful recovery.

(2) Mrs. P., aged 54, admitted January 20, with uncomfortable feeling and dull pain in left back since last March, following grippe. She also complained of cloudy urine. Frequency by day 6-8 times; night once.

Left kidney palpable; tender on percussion and palpation. Urologic examination done in Dr. Woodruff's office. X-ray films showed a large dilated pelvis, dilated calyces and calculus the size of an almond in middle calyx. Definite pyonephrosis of calculus. Three days after operation, left nephrectomy, temperature rose to 103°. Blood count at this time was 21,800 leukocytes with 84% neutrophils. Pus evidently high up in the lower left ureteral stump. Re-inserted a drain and patient doing well.

(3) Patient admitted January 25 with dull pain in right kidney region radiating downward. Has been bothered with same pain for 3 years. Examination negative except for palpable right kidney and tenderness on pressure. Radiograph showed 1 stone superimposed on another in right

lower ureter near orifice. Function test with indigocarmine; appearance right kidney 10 minutes. left kidney 3 minutes. Pyelogram was done with Woodruff catheter. Pictures show dilated ureter and ptosis of the kidney with hydronephrosis. Has been operated on, calculi removed and doing well at the hospital. At present awaiting nephropexy.

(4) Mrs. S. came in with story of chills and severe pains radiating downward in left kidney region for past 10 days. Has been previously treated by Dr. Woodruff in his office and the left ureter dilated from No. 3 to No. 10 catheter without passage of stone. Previous attacks since last Easter more severe, since November more often and more lasting, with vomiting.

Operated on 3 days after admission and calculi in the lower left ureter removed. Uneventful recovery.

Dr. Madaras reported 2 cases from the service of Dr. Donohoe.

(1) Male, age 62, admitted complaining of infection and amputation of the left small toe following cutting of corn. This patient was rather emaciated. Left toe gone; considerable moist gangrene. Blood sugar negative. Radiograph showed calcification of the femoral, tibial and peroneal arteries. Twenty-seven days after admission amputation performed on the right leg, at junction of middle and lower third, under spinal anesthetic. Patient suffered no shock and is healing normally.

(2) Patient, aged 25, male, bartender, about 5 weeks previously complained of general lassitude, anorexia, weakness, insomnia and jaundice. No gastro-intestinal symptoms. Previous to this illness had been drinking heavily. Examination showed distended abdomen. Liver markedly enlarged, 4 in. below costal margin, smooth; spleen not felt. Some evidence of ascites. Urinalysis showed albumin, bile, few granular casts. Stools clay colored. Diagnosis: Early cirrhosis of the liver.

Dr. Pinkerton reported a case of "ruptured spleen". Girl, aged 24, auto accident. No one had received any injuries worse than a slight bruising. About 15 minutes after the accident began complaining of sharp pain in left hypochondrial region and in left lower chest, with some shock. Taken home where her family physician saw her and she still complained of pain in same region, also some shock. Removed to the hospital where Dr. Pinkerton was called in and a diagnosis of internal hemorrhage was made, with probable ruptured spleen. At operation abdomen was full of blood which welled up at the wound. Spleen found to have been shattered. Clamp applied to what was left of the pedicle, and splenic tissue removed. Patient lived 18 hours. The interesting feature in this case is that such small trauma should cause so great an injury to the spleen.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club February 12, President Vanneman presiding.

Previous to calling the meeting to order, the president granted the privilege of the floor to Mr. Woodruff, representing the Rutgers University, who very concisely explained the Graduate Courses in Medicine conducted by the State Medical Society in cooperation with Rutgers.

Following a very earnest appeal for support of this project, by Dr. Morrison, the President appointed 2 committees: Drs. Little, Harry Williams and Purcell on Medicine, and Drs. Reddan, McCullough and Scammell on Surgery, for the purpose of organizing classes.

Dr. H. L. Bockus, Professor of Gastro-Enterology in the Post-Graduate College, University of Pennsylvania, was introduced and delivered a most interesting paper on "Hemorrhage in the Upper Abdomen".

Dr. Bockus confined his remarks mainly to gross hemorrhage occurring in the upper intestinal tract, with especial emphasis upon differential diagnosis in gastric and duodenal lesions.

Dr. North, the treasurer, reported 100% paid membership, and announced the receipt of a most gracious gift to the Society of a check for the sum of \$1000, from the estate of Dr. Horace G. Norton. Dr. North stated, that during his lifetime, Dr. Norton had often expressed a desire that the Society obtain a Professional building, suitable for its many growing needs; however, no specification accompanied the check.

The secretary was instructed to acknowledge this very substantial remembrance.

The Special Committee, composed of Drs. C. C. Chianese, Samuel Sica and R. J. Cottone, presented the following "Resolution" on the death of Dr. Raffaele Pantaleone, which, after being read, was moved spread upon the minutes and a copy sent to the family.

RESOLUTIONS

Dr. Raffaele C. Pantaleone was born December 23, 1871, in Villalba, Sicily.

His early education was obtained in the schools of his native village, and his preliminary preparation for studies in medicine was accomplished upon his graduation with highest honors from San Rocco College.

He received the degree of Doctor of Medicine in 1896 from the Royal University of Rome, taking a Post-Graduate course in Hygiene the following year, and receiving the appointment of Health Officer in Villalba, which office he held for a term of 3 years, upon the completion of his course.

He was Overseer of the Poor for three years, during which time he practiced his profession, and enlarged his scope of knowledge in the healing art sufficiently to produce a fervent desire for study in America. Upon arriving in the United States in 1906, he remained in New York City for a time, finally taking up his residence in Trenton, N. J., in 1907.

Dr. Pantaleone was a member of the La Societa Cavaliere Joseph Pantaleone, and an honorary member of the San Tomaso Society. His fondness for Italian literature gave him ample recreation, during his studies in diseases of the chest, in which subject, as well as in general internal medicine, he was deeply interested.

A man of strict ethics, civic duty and impartial attitude toward all reputable organizations for the betterment of human welfare, Dr. Pantaleone, by his self-sacrificing eagerness in striving for the higher ideals in life, leaves the community with reverential regard, and his brother practitioners in solemn contemplation of his valiant efforts.

Whereas: by his death, on December 3, 1929, the Mercer County Component Medical Society is deprived of a wise counsellor, a loyal friend, and an honored colleague,

Be it Resolved: That in affectionate regard,

these Resolutions be spread upon the minutes, and a copy be sent to the members of his family.

Signed by the Committee:

C. Chester Chianese
Samuel Sica
R. J. Cottone

Dr. Harold L. Davis was elected an active member, and the applications of Drs. Meyer H. Friedman, J. Leslie Wikoff, and Joseph Ragany were read and referred to the Membership Committee.

A communication from the Executive Secretary of the State Society, relative to "workers in the so-called fine arts", was read and received favorable response by requests for copies.

A "contract" amendment to the by-laws was presented for second reading and regularly adopted, following which, the by-laws in their entirety, were moved and adopted.

Copy of Contract Practice Amendment

(a) This society believes that contract practice, except such as this society shall sanction as reputable under existing compensation laws, is at variance with the Code of Medical Ethics and derogatory to the dignity of the profession.

Therefore, the name of any member receiving or renewing such contract shall, ipso facto, be dropped from the roll.

(b) Any member having or considering a contract under existing compensation laws shall present a certified copy of the contract to the secretary of the society.

Such contract shall be presented to the society at a regular meeting, and be referred to the Board of Censors, who shall consider such contract and report to the society at the following meeting.

Any member failing to present such contract to the secretary will be dropped from the roll, after due action by the society.

(c) Any physician engaged in contract practice, making application to the society for membership, shall present with his application a certified copy of his contract.

The committee will revise the form and printing of the by-laws.

The motion was made and passed that the secretary mail a copy of the above motion to each member of the society, to Commissioner of Institutions and Agencies to the Mercer County Dental Society and to the N. J. State Medical Society.

Dr. Morrison read a very interesting paper on the subject of "Industrial Medicine", the many devious ramifications of which were most thoroughly outlined and defined.

MIDDLESEX COUNTY

William C. Wilentz, M.D., Reporter

The Middlesex County Medical Society held its regular monthly meeting February 19 at the Perth Amboy City Hospital with Dr. Wm. McCormick presiding, in the absence of Dr. Brown, the President. The minutes of the last meeting were read and approved.

Mr. Brines, of the Rutgers College Extension Division, was then introduced and gave a résumé of the courses in medicine and surgery which they are offering to physicians. The course is to be along Post-graduate lines and to commence in April. Dr. McCormick appointed a committee to assist Mr. Brines in securing subscribers among the members of the society.

Medical Section Rutgers Club

John H. Rowland, M.D., Reporter

The regular monthly meeting of the Medical Section of Rutgers Club was held on Wednesday, February 12 at the Woodrow Wilson Hotel, Dr. James P. Schureman presiding.

There being no business to transact, the speaker of the evening was promptly introduced. Dr. Brooke Bland, Professor of Obstetrics, Jefferson Medical College, gave a very complete and thorough talk on "Indication of Cesarean Section". The subject was later discussed by the members present. The impression of the talk was that cesarean section was indicated in any condition when the life of a mother and child was in danger, except eclampsia. Dr. Bland also stressed the advisability of early diagnosis, very conservative judgment and hasty therapeutic measures based on the circumstances of the case.

There were about 25 members present.

After the talk members were entertained in the main dining room by Drs. Cronk, Fagan, Faulkingham and Feher.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society was held the evening of Monday, February 24, at the Church of the Redeemer Parish House in Morristown.

President Laurence M. Collins presided over an attendance of about 35 and the interest developed could not be otherwise than gratifying to the President and the Executive Committee, as showing success of their efforts to provide special meetings of real worth to the society.

President Collins first introduced Professor Morton of Rutgers University, who gave a vivid outline of the plan for graduate courses in Medicine and Surgery, saying: as you probably know, for the past 2 or 3 years, the State Medical Society has been talking about post-graduate work for the physicians of this state. Many people have had the impression that a great number of physicians in the Metropolitan area were taking courses in New York and that many in the southern part of New Jersey were going into Philadelphia; but a survey indicated that there were a number of doctors that were not doing a great deal along post-graduate lines in any institution.

It is planned by our state society committee and Rutgers to deliver graduate instruction to the physician at his home. The plan is simple. Each county society is to provide a committee to work with the university representative and to secure a local place of meeting, which must be without cost to the university or the state society, and to canvass the doctors within the county in an effort to build up a sufficient number to take these courses. The cost of each course is \$30 for 8 lectures of 2 hours each. It is our hope that Morris County will come into the program and that a center will be established in Morristown or in Dover, as you prefer, because Sussex County is anxious to take these courses and of the 18 members of that society 10 have already indicated a desire to enroll for one or both of these courses. The time of holding the course is left with the local society and the only requirement is that we have a minimum of 25 for each group.

Secretary Lathrope stated that Dr. Collins and he had been talking the matter over and in a few days a further circular will go out to the entire society with an enrolment blank, which is to be

signed and returned directly to the county society secretary. Drs. Collins and Lathrope hope that at the regular meeting on Tuesday, March 13, they will be able to announce 2 full enrolments, 1 in medicine and 1 in surgery.

President Collins then introduced the speaker of the evening, Dr. William A. Wilson, Attending Surgeon St. Marks' Hospital, New York, and Instructor in Urology at Cornell Medical School, to speak upon "Tuberculosis of the Kidney".

Dr. Wilson felt that *early examination and careful examination* constitute the answer to this problem of renal tuberculosis; that renal tuberculosis is always a secondary affair and the primary involvement will be found in the chest or bone; that it does not ascend but that it descends to the kidneys and then the lower urinary tract.

Dr. Wilson mentioned also that sometimes we have tubercle bacilli pass through the kidney without causing any involvement of the kidney; but it is certainly time for us to investigate the kidney function and begin to pay enough attention to our patients when we find more than a few bacilli in the urine. Dr. Wilson covered a variety of important detail and his address was received with marked attention and interest; and he received a spontaneous rising vote of thanks and appreciation.

Discussion was entered into by Drs. Glazebrook, Lathrope, Frost, Krauss, Young, Larson, Rubin and others; their questions being answered by Dr. Wilson in his manner of full enlightenment.

At the close, buffet refreshments were enjoyed.

PASSAIC COUNTY

Frank W. Ash, M.D., Reporter

The February meeting of the Passaic County Medical Society was held at the Passaic City Club, Passaic, on Thursday evening, February 13, Dr. James P. Morrill presiding. This was a joint meeting with the Passaic Practitioners' Club.

The minutes of the January meeting were approved as read. Dr. Morrill commented on the Post-Graduate Courses to be given under the direction of the state society. He said he would appoint committees to form the study groups within the next few days.

The application of Dr. Maurice M. Chapnick was read to the society and ordered sent to the Board of Censors.

The application of Dr. John De Rosa of Paterson was returned from the Censors with approval. It was voted upon and the doctor elected to membership. The application of Dr. M. Nemirow, of Passaic, was not approved by the Censors; it was voted upon and defeated.

Dr. Tuers spoke upon a bill about to be presented before the legislature. It is a bill giving nurses and hospitals the right to collect for services rendered compensation cases. He asked the doctors to try and make the assemblymen understand the economic importance of this bill to hospitals.

Dr. Morrill spoke of the "surgical bill" which is now in committee. He said that the State Society wished to have this bill defeated.

Dr. Yates, Chairman of the Committee on Resolutions regarding the death of Dr. George Balleray Flood presented the following resolutions which were accepted by the society.

We are called upon again to record the sudden and untimely death of another member of this society in the person of Dr. George Balleray Flood, who was stricken suddenly while on his

way to make a professional call at the home of a patient.

Dr. Flood was apparently in his usual vigorous health (with the exception of some seemingly minor indisposition for a few days previously) and his sudden demise came as a shock to his family and friends, also to a large number of patients to whom he ministered faithfully and with self-sacrificing zeal up to the moment of his death.

Dr. Flood was born at Waterville, Maine, 53 years ago. He graduated from the High School at Waterville and later attended Kents Hill at Readville, Maine. He studied medicine at Columbia and graduated in 1901. His internship was spent at St. Joseph's Hospital and he commenced practice in Paterson in 1904.

A nephew of Dr. George Balleray, who was one of the most distinguished fellows of this society, he became closely associated with him in the practice of medicine in Paterson up to the time of Dr. Balleray's death.

Dr. Flood's associates found in him an entertaining and unique personality. He was exceptionally industrious and alert, an untiring worker and devoted to his profession.

Those who knew him well will recall his facility as a raconteur. His memory served him well and he was always ready with a fund of humor apropos to the occasion.

He had the confidence of a large number of patients whose faith in him must have caused that feeling of satisfaction that comes with work well done.

The members of this society regret his untimely death; Therefore, be it resolved:

That a copy of this record be spread upon the minutes of this society and a like copy with the assurance of our sincere sympathy be forwarded to the family.

James P. Morrill

Victor E. Bullen

John S. Yates, Chairman.

Dr. A. L. Soresi, Clinical Professor of Surgery at the Flower Hospital Medical School, gave an intensely interesting talk on the "Newer Aspects of Diagnosis and Treatment of Ulcer and Cancer of the Stomach, Cholelithiasis, and Diseases of the Gastro-Intestinal Tract in General". This paper was very enthusiastically received and provoked much discussion.

A collation was served following adjournment.

SALEM COUNTY

William H. James, M.D., Reporter

The Salem County Medical Society met at the Memorial Hospital, Salem, on Wednesday, February 12, at 2.30 p. m. The meeting was called to order by President L. H. Hummel, with 14 members and guests present. The guests included Drs. S. F. Ashcraft, of Mullica Hill, Dr. E. E. Downs, of Woodbury, and Dr. Winslow, of Vineland. The minutes of the last meeting were read and approved.

Dr. R. M. A. Davis, of Salem, read a very interesting paper on cancer. Cancer of the stomach seemed to be the most common form and the mortality was greater than any other. Cancer begins slowly and is hard to recognize, as patients are very slow to consult a physician as to their condition and seek to keep it from their friends.

Cancer is not contagious but care should be

taken to burn all discharges, etc. New England has the highest percentage of cancerous cases. Cancer is not hereditary.

This paper was thoroughly discussed and especially by Dr. Downs who gave a very interesting talk about the various forms of cancer and treatment of this disease. Drs. Church, Ashcraft, Hummel and Davis also discussed this paper.

Dr. E. E. De Grofft, of Woodstown, read a most interesting paper on "The Vicissitudes and Incidents of Doctors' Lives from my Viewpoint". This was a delightful résumé of the county doctor; as Dr. De Grofft has been in practice over 50 years he knew whereof he spoke. This paper brought out a very lively discussion and it was moved and seconded that it be printed in the State Journal.

Mr. Clovis, of the University Extension Division of Rutgers University, was present and gave an outline of the proposed postgraduate work that will be offered to the physicians of this society. There was a general feeling that Cumberland and Salem Counties could arrange a meeting in Bridgeton so as to take the courses at the same time. There were 8 members present who expressed their willingness to join and 3 or 4 others who were not present but no doubt will join.

After the meeting the members had the usual dinner at the Johnson Hotel.

The next meeting will be held at the Memorial Hospital on the second Wednesday in April.

SOMERSET COUNTY

J. H. Cooper, M.D., Reporter

Our genial and able President, Dr. Lawton, being confined to his bed by illness, Dr. Brittain presided. A larger attendance manifested a desire on the part of members to make our society more of a success and to hear what the state medical society officers had to tell.

Drs. McBride, Morrison and Reik were present and also Professor M. A. Chaffee, of Rutgers University.

Dr. McFride gave a very pleasing and instructive talk on preventive medicine. Dr. Morrison referred to the Rutgers University Extension Courses. Dr. Reik devoted attention to legislative bills.

After Mr. Chaffee had spoken, 14 of the 18 members present expressed themselves as desirous of taking the Rutgers courses.

A vote of sympathy was extended to Dr. Lawton

UNION COUNTY

Clinical Society of Elizabeth General Hospital.

The regular monthly meeting of the Clinical Society of Elizabeth General Hospital was held on Tuesday evening, February 18, Dr. Michael Vinciguerra, President of the Society, in the chair.

An interesting case of "Glioma of the Retina" was presented by Dr. Sherwin L. Haseltine. This case was discussed by Drs. Schlichter, Green, Stein, and Vinciguerra.

Two cases of "Diabetes Mellitus" were presented, one by Dr. Arthur Stern and one by Dr. Harry Bloch.

"Diabetes Mellitus" was also the subject of the paper of the evening, which was read by Dr. George T. Banker. Discussion of the paper was

opened by Dr. Bloch, and participated in by Drs. Livengood, Wagner, Wade, Abel, and Vinciguerra.

After adjournment of the business session, a collation was provided by the Women's Auxiliary of the Hospital.

Summit Medical Society.

January Meeting

W. J. Lamson, M.D., Reporter

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, January 28, 1930, with the President, Dr. Meigh, in the chair, and Dr. Disbrow entertaining. Present: 24 members and 4 guests. Minutes read and approved.

As the society will attain its twenty-fifth birthday on April 13, 1930, the President appointed a committee to make suitable arrangements for a "Dinner" to celebrate this auspicious occasion fittingly: Drs. Lawrence (chairman), Prout, Meigh, Krauss and Lamson.

The paper was read by Dr. Norman E. Titus, of New York, on "Physiotherapy". The three principal means employed are heat, mechanical motion and chemical effects. Dr. Titus described the properties: therapeutic indications and effects of all known varieties of heat and light rays, from the infra-red to the ultraviolet. The results in many cases are amazing and superior to all other forms of treatment. He even postulated that it may be possible, in the near future, as a result of research now being made, to find wave-lengths which will be specific for different kinds of bacteria, such as typhoid, pneumonia, etc. He stressed the value of diathermy in appropriate cases. Massage and active and passive manipulation have been greatly neglected by the medical profession, but utilized by various cults and quacks to their advantage. He advised the use of active muscular exercises in fractures just as soon as union begins, as it shortens convalescence 50%. The static machine, once discarded, is coming to be recognized as of great value as a decongestant in sprains, synovitis, bursitis and myositis.

There was so much that was new and interesting in his presentation of the subject that 2 hours passed quickly before we realized that the hour was very late, and that it was time for the usual refreshments.

February Meeting

W. J. Lamson, M.D., Reporter

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, February 25, at 8.30 p. m., with the President, Dr. Meigh, presiding, and Dr. Lamson entertaining; present 23 members and 6 guests.

Minutes read and approved. The Committee on the Twenty-Fifth Anniversary reported progress.

The paper of the evening was read by Dr. Lamson, on "Temperature; Its Causes and Regulation". He gave a brief review of the physiologic factors in the production of body heat, described its regulatory mechanism by means of the sympathetic system, and cited some of the theories as to how this was brought about. The rôle of fever in disease was also discussed, as well as the therapeutic uses of fevers artificially produced.

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CLINICAL STUDY OF A GRAPHIC METHOD OF RECORDING BLOOD PRESSURE*

LOUIS FAUGERES BISHOP, M.D.,
LOUIS FAUGERES BISHOP, JR., M.D.,
New York City

One hundred years after discovery of the circulation of the blood by Harvey, Hale's demonstration in 1733 proved that the blood stream carried with it a necessary consequence, that of pressure. Another 100 years elapsed before this was given serious consideration. In 1828, Poiseuille introduced the mercury manometer of U-form by which one was able to study blood pressure in circumscribed space. Coagulation was retarded by sodium carbonate, a method used even today. All this work paved the way to newer discoveries, and in 1847 Ludwig made use of the "kymographion", the forerunner of all modern graphic methods of precision. This earliest instrument obtained a pressure tracing from an open artery through a recording manometer, the tracing being made upon a revolving cylinder. It, however, recorded only a mean blood pressure and very elaborate compensatory adjustments were needed to obtain correct readings.

The work of Ludwig in physiology, with his kymographion, made itself felt as a stimulus in the field of clinical medicine. I do not wish to review here the large number of steps that led up to the development of an appara-

tus adaptable to clinical use except to bring to your attention that the invention by Riva Rocci of an instrument equipped with a cuff and bulb attachment was the outstanding achievement in this field.

The subject which we wish to review more carefully is the use of graphic methods for recording blood pressure, in which a device may be attached to the instrument for automatic registration. Among the instruments in use is the sphygmotonograph of Jacquet in which the stylet of a small metal manometer communicating with the brachial cuff registers directly by a tracing. The beginning of the curve represents 50 mm. Hg. pressure and each elevation of 1 mm. Hg. on the tracing is equal to 10 mm. increased pressure. One objection, however, attaches to most metal manometers and that is the necessity of standardization.

Ringel has devised an instrument in which every pressure change of 10 mm. is marked on the tracing by interruption of an electric current. The spacing, however, is rather wide for clinical purposes.

The sphygmomanometer of Gibson consists of a mercurial manometer, with a double U-shaped tube. In the reading, the abscissa must be doubled. The height of the mercurial column is automatically recorded, thus eliminating the personal equation. A disadvantage is the inertia of the mercury column rendering it less sensitive to delicate pressure changes. The instrument gives readings of considerable accuracy, but is somewhat bulky. C. Singer has devised a very similar instrument, but of less clumsy make. Erlanger's instrument is also suitable for laboratory

*(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 14, 1929 and in part before the American College of Physicians, April 9, 1929.)

rather than clinical use, on account of its complexity. Time and skill are required for its use but the records have considerable accuracy. It differs chiefly from other instruments of this type in the fashion of the recording apparatus, which is as follows: A U-shaped manometer is attached to a 4-way tube which connects with (1) the arm cuff, (2) a special stop cock and (3) a rubber bulb enclosed in an outer glass bulb. Records are made on the kymographion upon smoked papers by means of an aluminum needle. The pump consists of a Politzer bag, and heavy rigid tubing is employed. Polygraphic attachments can be applied and used for pulse tracings. The systolic readings obtained with this instrument come 5 mm. higher than those with the Riva Rocci type, and the diastolic correspond within a range of 5 to 15 mm.

The Uskoff sphygmotonograph was devised for reading both blood pressure and pulse tracings. It fulfills the latter task admirably, but owing to arrangement of the air control sudden changes from large to small pulsations are not readily transcribed. For this reason the blood pressure tracings should be checked up by the auscultatory method. The Uskoff instrument simultaneously records the following: (a) blood pressure in mm. Hg.; (b) carotid pulse (or jugular pulse or apex beat); (c) arterial pulsation from the brachial artery; (d) time in fifths of a second.

Another instrument of the graphic type is the Silberman manometer. This machine is equipped with a radial and a brachial cuff, a mercury manometer, a float, revolving drum for smoked paper, and an automatic registering device. A vertical arm piece has comb-like projections spaced so as to record 5 mm. Hg. in the manometer. When the kymographion revolves a series of horizontal lines are traced. The instrument is also fitted with a time marker, $2/5$ second, and a driving mechanism in 2 speeds. The horizontal lines are used to indicate height of pressure to which the tracing ascends.

A graphic method devised by Brugsch consists of a U-shaped manometer and a revolving drum covered with white paper ruled in centimeter spaces, which can be set at any

level; a registering float on the mercurial column transmits the pulsations directly to the drum. The brachial tracings are transmitted by means of rubber tubing to a piston recorder and traced by means of ink pens upon a drum below the pressure curve.

The sphygmotograph of Muenzer is an elaborate and complicated instrument in which the pulsations are transmitted through a balloon from the cuff to the kymograph upon which they are recorded. The kymograph has 2 speeds, slow for blood pressure and rapid for pulse tracings, and a time marker. For pressure the cuff and balloon only are necessary and the stopcocks are closed.

Fleischer's instrument is somewhat similar, but instead of using a balloon to dampen down force of the pulsations between the cuff and tambour, a device of metal cylinder containing the celluloid cylinder is used; the latter floating in a layer of oil. The air from the cuff imparts pulsations to a counter-weighted lever, which transmits the motions to a wire and thence to the recording needle.

In an ingenious little instrument by Bussemius the necessity for driving force has been eliminated by simply letting a narrow upright supported strip of paper fall down by gravity at a graduated rate past the pulsating tambour. The strips fall at a rate of 1 cm. per second. This device can record both systolic and diastolic tracings.

Wybauw's instrument deserves mention. It is a modification of Erlanger's but is provided with a double cuff, which secures a more accurate systolic reading since impactions of the pulse wave are prevented from reaching the tambour. The height of the pressure is not automatically recorded.

Dr. L. A. Amblard, of Paris, a pupil of Potain, has invented a graphic instrument, which he names the sphygmometoscope, with which he obtains a graphic record of both diastolic and systolic pressures, and a record of pulse tracing. This apparatus consists of an arm piece, a compression apparatus, and a very sensitive manometer. The arm piece is a rigid one of leather, fitted inside with 2 rubber cuffs, placed just far enough apart to per-

nit of their inflation without touching. The inflating bulb is furnished with a stopcock, one branch of which leads by a rubber tube to the upper cuff, and one branch, which is Y-shaped, leads in one direction to the lower cuff and in the other to the registering apparatus. On the upper surface of the stopcock there is a turning device, which can be adjusted to an index, a, b or c. When the index is at a, the communication between the cuffs and the manometer is open; this is the inflation position. When the index is at b, the different parts of the machine are opened out; the deflation position. When the screw is turned half way, the upper cuff is isolated, and only the lower cuff is in communication with the manometer. The apparatus itself consists of a metal box, on one side of which are 3 openings: (1) for the tube which sets the registration apparatus in motion; (2) for the tube which communicates between the sleeve and the registration apparatus; (3) the tube which connects with the manometer. On this same face we have the key of the chronograph. On the opposite side of the box are the key for unwinding of the paper and the level which changes the speed. The machine is equipped with 2 speeds, 1 and 3 cm. per second. On top of the case is a tambour attached to the interior by a tube. This also bears a stylet, which by a moveable clamp device can be moved over the face of the tambour at any part. The cuff is inflated sufficiently to suppress pulsation in the brachial, when the stopcock is opened and gradual deflation begun. The first abrupt increase in the tracing indicates maximal pressure; the first abrupt decrease indicates minimal pressure.

The instrument which we have used in our study of graphic methods for recording blood pressure is the Tykos recording sphygmomanometer, one of the most recent on the market. These tracings are made on a revolving disc and are purely pressure graphs, caused directly by the arterial pulsations, and do not represent units of time or of time and pressure. The clock or motor in general use is eliminated in this machine, and, instead, the movement of the kymograph is set up by means of a small stream of air escaping from

a collapsing metal tube of light construction. Deflation through the light tube follows on decrease of pressure of the arm cuff around the brachial artery. As pressure of the arm band diminishes, it permits the arterial force to make itself felt and to impart its pressure to the pen of an oscillometer, which in turn records the tracing on the moving disc. The instrument is equipped with a sleeve for the patient, in which are 2 cuffs, an upper and a lower. The sleeve is applied snugly to the arm just above the elbow and when inflated to the desired amount should cause compression sufficient to suppress pulsation of the brachial artery. To test this, one may apply the stethoscope with the ordinary mercurial instruments. When the cuffs are correctly placed the "upper chamber" tube from the upper cuff connects with the upper chamber connection into the tank and tambour of the instrument; at the same time, the lower cuff has its own connecting tube, a direct one to the oscillometer, and it is this latter which causes the pen to receive the volume changes in pulsations of the artery. The lower cuff tube also passes on to the valve which controls the air leak from the tank.

The sleeve adjusted, the patient is told to keep quiet and relaxed, and sufficient inflation having been secured the process of deflation is commenced by opening a valve. The puff of escaping air at once starts the disc revolving. The first impact to occur against the upper, or filter cuff, is the thud of the closed artery, which causes a slight pulsation—the so-called "hydraulic ram wave"—which registers itself on the pointer and traces on the graph a series of short spikes directed inward toward the hub of the disc. As soon, however, as the surplus pressure of the cuff has been used up that of the artery is released and begins to make itself felt. By this time the pressure of the upper cuff is lessening and allows the waves to pound upon the lower cuff. The effect of this is to set up a direct record, observable on the chart as a series of spikes pointed toward the periphery of the disc. What this really means is that systolic pressure is tracing its direct autograph on the diaphragm. Without manipulation this would naturally appear as a series of waves, but a

method of timing rotation of the chart in relation to oscillations of the pen has been worked out, so that, instead of waves, a series of spikes is produced and the *height of the spike*, which is an important feature, is brought into prominence.

The first spike traced pointing toward the periphery bears relation to the first systolic sound. After the first spike the general character of the curve in this instrument is similar to that shown in other pressure instruments. Increase of pulsation in the released vessel under the cuff causes higher and higher spikes up to a certain point, at which they are seen to decrease in height and the peaks to become wider at the base. The first definitely shortened spikes correspond to the phase of diastolic pressure and with transaction of the third and fourth phase. We regard the first typical lowered spike as indicating diastole.

As has been said, the tracing is expressed in terms of pressure only. The chart is of disc shape and moves with angular motion, thus giving different rates of speed to points of varying distance from the center. Second, the speed and the retardation are not uniform and these factors may be so adjusted as to bring out features in the tracing which it is desirable to emphasize and to lessen masking effects such as those produced by respiration. In this instrument the diaphragm of the oscillometer receives a delicately balanced supply of air on both sides—on the pen side from the upper cuff by way of metal reservoir, and on the lower cuff it gets an air puff direct from the recording cuff. The second air passage has a constriction in its course, imposed for the following reason: the narrowing causes a momentary blockage of the air passage and consequently a transitory imbalance of the diaphragm and closing of the minimal valve. The result is a halting motion of the kymograph with each beat of the heart. This is what caused the characteristic spike-like appearance in the tracing which we have sought to obtain, as the thing most desired for study is the height of the wave. Intermittent movement of the chart also gives a series of figures which are very nearly straight and which lie at right angles to the base line and close together, instead of a

series of waves with wide base, which would be the case were the action continuous.

Another point which has been worked out carefully is the design of the cuff. According to Von Recklinghausen, the narrower the cuff the greater the pressure, and vice versa. This fact was used to standardize the cuff so that the width affects pressure reading in such a way that the first spike on the tracing corresponds with the first sound, as heard in the normal individual and by the normal ear. The listener's ear was standardized by the audiometer and a patient was used in whom the sounds approached classic regularity.

During the past year we have been using this graphic method of recording blood pressure in our office and have taken about 500 records. We have carefully checked the readings made by this graphic machine with the manometer (Becton-Dickinson, Co., model) and they have compared very closely with the auscultatory method.

In order to illustrate certain features of this graphic method of recording blood pressure I have included the following cases from our series, which I believe will show how this machine can be useful in clinical practice. (Exhibited a series of tracings.)

These few cases, which I have picked out of many, illustrate something of the practical value of this method of recording blood pressure. The physics of recording blood pressure is very complicated and it is not our intention here to go into this phase of the question. The few conclusions we would like to make are:

- (1) Removal of the personal equation in blood pressure is probably the most important point in use of a graphic method.

- (2) Some conclusions can be drawn in regard to the cardiac arrhythmias from the records of blood pressure made with this instrument, but in no sense does it replace the electrocardiograph for this purpose.

- (3) The curves shown are purely graphs of blood pressure recording pulsations of the brachial artery. In no sense do they show any intracardiac manifestations.

- (4) In cases where ordinary methods are very difficult, as for example auricular fibril-

ation and paroxysmal tachycardia, the graphic method is of great value.

(5) Should the future bring forth an instrument which is less complicated and does not require such skilful manipulation a great advance will be made in clinical study.

SO-CALLED ATYPICAL PNEUMONIAS*

CLARENCE L. ANDREWS, M.D., F.A.C.P.,

Medical Chief Atlantic City Hospital,

Atlantic City, N. J.

Do styles change in diseases as they do in dress, or is it that with our markedly improved facilities for making more precise and accurate diagnoses, what formerly was considered to be the same or similar would most likely be classified now under different headings or into unlike groupings? Moreover, does a given disease appear under the same guise in different individuals during a certain period, or are there several varieties of each type, which may masquerade as unlike forms in a given person if he happens to suffer from more than one attack? Finally, what criteria determine the so-called typical forms and what justifies the classification of one group of diseases as being classical and another group as being unusual? These are all pertinent and fundamental questions which should be answered with a certain degree of exactness if we are to properly interpret our physical findings. The changing varieties of clinical and physical pictures in disease has always been a most inspiring and absorbing subject to observers, especially in pneumonias following great pandemics like those of influenza which have rapidly swept the entire globe; the last tragic one of which occurred in 1918. During this latter time the entire medical world was shocked to its very foundation by the appalling death rate attending influenzal pneumonia in apparently healthy

and physically fit individuals. Following great medical upheavals, widely spread pestilences, and active epidemics like these, a more critical and careful study is made of all disease. Therefore, some of the most conspicuous advancements in the progress of medicine have been recorded during or following such human catastrophies.

Not unlike the strenuous exigencies of warfare, which bring into play the highest degree of human proficiency and ingenuity that the mind possesses, and following which many new and improved departures from the old methods of doing things are made, massive trials and increased human suffering in disease call upon the combined efforts of scientific medicine to perform its best, and out of this concerted action of medical thought there almost invariably emerges a clearer and deeper understanding of the problems. By such an assertion one does not mean that we should invite epidemic disaster in order to further advancement of preventive medicine. However, the fact remains that the ordinary characteristics of human complacency, which obtain in medicine as well as in warfare, allow one to sit dormant and satisfied, as it were, until aroused to greater action by some threat at our very existence. Not only is this true in medicine, but it happens in ordinary life as well. One only has to look about him to find examples of this nature. The daily appalling death rate due to automobile accidents serves in a sense to bring about better, more strenuous and safer devices for protecting human life and while they are not by any means entirely successful in reducing the accident rate as much as one would like, one has the feeling that with our ever increasing degree of automobile saturation former methods and regulations of handling traffic would most likely have made what we now regard as being bad, even worse. Our present day population could not be served by doctors of the horse and buggy age, nor could our improved methods of diagnosis, which our grand-parents would most likely regard as being unnecessary and expensive, fit into their time. Therefore, each period of medicine, as well as history, stands out as a dis-

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tinct time within itself and as a mark of progress. However, we have no exact methods for comparing one medical era with another; particularly with the past, because prior to several decades ago medicine as a science was based largely upon case history studies and clinical observations, and while we have many more precise and accurate measures of diagnosis than they had, the true art of physical diagnosis as understood and practiced by the old masters is almost a lost art. Therefore, in attempting to determine whether types of diseases which we now see are atypical or unusual, in terms as described in the past, one cannot easily do so because the methods of approach and diagnosis of the various periods are not exactly the same. Moreover, modes of living, industrial, social and economic relations of man to man are wholly unlike those of only a few generations ago. Therefore, why not anticipate changes in disease hand in hand with or following different ways of living, or expect different manifestations of the same types of disease in a newer and more plastic age? This can be best illustrated by referring to the teachings and description of pneumonias which have been recorded in the past.

Prior to 1918, pneumonias were classified chiefly under 2 main headings: the lobar pneumonias in which one or more lobes were described as being completely consolidated; and the lobular or bronchial pneumonias which were characterized as having small patches of consolidation in many or all of the lobes. The lobar type was spoken of as beginning abruptly with a chill or a chilly sensation, or with pain in the involved side; with increased respirations, rapid pulse and a sudden rise in temperature. Within 30 to 48 hours a short hacking cough developed with a rusty or blood-tinged sputum. On physical examination the patient looked anxious, the cheek on the involved side was usually flushed and the involved chest expanded less than did the uninvolved side. On percussion, there was beginning dullness over the affected area, and on auscultation fine crepitant râles were heard. The heart and blood pressure, at first, were not much changed from normal,

but soon there was an accentuation of the pulmonic second sound, on auscultation, and a fall in blood pressure below what was present at the outset of the disease. In the bronchial pneumonia types, the onset was more gradual and usually followed an uncorrected cold or was secondary to one of the acute infectious diseases like measles or diphtheria. The temperature, respirations and pulse were not greatly elevated at the beginning; there was little if any cough and the patient at first did not appear to be particularly ill. Physical examination of the chest showed very little change from normal, if seen early, but later on small areas of dullness were made out on percussion, and on auscultation medium sized râles were heard. The first type of pneumonia generally ended by crisis, if the patient got well; and the second gradually came down to normal, or terminated by lysis. The only marked departures one finds recorded in the literature and teachings from these 2 types prior to 15 or 20 years ago were those pneumonias which occurred in children under 2 years of age and in the terminal or hypostatic pneumonias which developed in the physically defective and the badly injured.

Therefore, the medical profession of that period thought about, wrote about and talked about pneumonias largely in terms of these 2 classical types and apparently paid very little attention to other varieties until the tragic epidemic of 1918; which was wholly and completely different from either of the so-called orthodox forms.

Following 1918, however, a more critical study of all diseases has been made and many departures from the so-called normal or typical forms have been observed, particularly in the pneumonias. Clinicians have begun to wonder, therefore, just what the real classical forms are and where the border line begins and where it ends. In spite of this newer and deeper insight into pneumonia, its pathology and its great tendency to assume various and unlike forms during a given outbreak, even in the same locality, many of our medical confrères are still interpreting and thinking

of pneumonia in terms of the previously described forms and are loathe to diagnose any pulmonary disturbance as being pneumonia, regardless of what the physical findings may be, unless it conforms in some manner with the orthodox description of that disease. It is concerning this peculiar tendency on part of many to try to fit the case to the diagnosis rather than the diagnosis to the case, that I wish particularly to speak.

First of all, what clinical or physical data constitutes the so-called typical type. Scientifically, it means the greatest number of instances in which a given disease may occur in a similar form or the greatest number of times it may present the same chain of symptoms. That is to say, that if in 1000 cases of lobar pneumonia, for instance, one finds that 900 developed a cough with a rusty or bloody sputum, and 100 did not, one would consider it more typical for subsequent cases to have a cough with rusty or bloody sputum. The 100 who do not present symptoms of rusty sputum or cough, may have pneumonia just the same. Therefore, the term typical or the idea of a distinct chain of symptoms having to be present before one dares to diagnose it as a given disease may be a very arbitrary and uncertain clinical finding, if considered purely from that angle or in that sense. Moreover, if all of our pneumonia data and teaching dated from the great epidemic of 1918, we should most likely have a far different conception of that disease from what we now hold. Yet, those were the prevailing types during that particular time and represent a large mass of clinical material carefully studied over a very extensive area. Therefore, they could have easily served to form a clinical foundation for a classical description of this disease. They did not do so, however, because they were so generally regarded as representing the exceptional and unusual types. We have just passed through another epidemic of gripe of a rather severe form with many pneumonias of a variable and unusual symptomatology, and all that one hears discussed by medical men is that they were not true pneumonias because they had no cough or brought

up no rusty sputum, notwithstanding perfectly well defined physical signs in the chest. How soon is the medical profession going to learn that changing personal conditions, varying modes of living, and different strains of bacteria may not always present the same chain of symptoms in a given disease?

Diagnostic medicine from the average doctors viewpoint must undergo a great revolution and general upheaval. Well defined rules and what to expect must be rewritten in their minds and newer points of view advanced. How well one knows that the more skilled the surgeon is in diagnosis, the less diagnostic he becomes concerning surgical diseases; because he meets with the exceptional case as often as he does with the rule. Moreover, increasing postmortem studies have dispelled many a clear-cut and thoroughly defined antemortem diagnosis. We are passing through a medical era unlike any of previous times. Therefore, doubt in diagnosis should be less in evidence and certainties more constant, because of the many methods of approach not possible in former years. However, along with this deeper insight into disease has come a lack of proficiency and efficiency in the true diagnostic arts. Physicians are more prone to seek the "canned variety" of diagnosis, as it were, and allow their judgment on clinical and surgical pathology to grow stale. Herein lies the true explanation for much chaos concerning the disturbances of the chest.

I wish to make a plea for a more painstaking history, a greater thoroughness in physical examination, and a wiser correlation of facts into a composite picture, without regard to whether the case is typical or atypical from the text-book point of view, before one attempts to define the condition at hand. Still too many cases of deep seated pneumonia are operated upon for acute appendicitis and gall-bladder disease, because of abdominal pain and vomiting; too great a number of pneumonias are classified as typhoid fever or meningitis, because of severe headaches; and far too large a number of pneumonias are missed entirely because of the absence of cough and sputum, which makes the physician practic-

ally ignore the chest and center his entire attention and efforts upon other sections of the body. Two of these unusual forms were quite common during the recent epidemic and many of both types developed coughs and sputum rather late in the disease. The signs were present in the chest, nevertheless, in every instance and should not have escaped the ear of a careful observer.

CONCLUSIONS

(1) The term "atypical pneumonia" is another name for the same disease in a different form; as, not unlike many general infections, the pathology in the chest may be completely masked by symptoms elsewhere in the body.

(2) Pneumonia is no respecter of persons either as to type or age. Careful post-mortem studies by several observers have proved beyond doubt that any form or type of this disease may occur at any age from the youngest infant to the oldest adult. Moreover, that each form may masquerade under a different guise at different times.

(3) Improved and short-cut methods of diagnosis have done more than anything else to make a promising young doctor grow less skilful and efficient in the art of chest examination as years go by; as the average intern is relatively a better diagnostician than the same doctor 5 years later.

(4) Examine each case thoroughly and completely without regard to what you think the condition should be, and by the correlation of these logical, clinical, physical, and pathologic data fit the disease to the patient rather than the patient to the disease.

DISCUSSION

Dr. Louis Faugeres Bishop, Sr. (New York): I think this paper ought not to go by without some commendation at least. All of us who have had experience with pneumonia know how difficult it is to avoid blunders in overlooking atypical conditions. I was very much impressed by Dr. Andrews' emphasizing the fact that pneumonia might be confused with meningitis. I have seen it frequently confused with appendicitis and gall-stone conditions, and I think we can learn from this interesting paper never to forget the possibility of pneumonia in any acute disease characterized by pain in any part of the body.

INFLUENZA; A CLINICAL DISCUSSION OF PULMONARY SYMPTOMS AND COMPLICATIONS IN A STUDY OF 100 CASES FROM 1928-29 EPIDEMIC*

D. WARD SCANLAN, M.D., F.A.C.P.,
Visiting Physician Atlantic City Hospital,
Atlantic City, N. J.

The medical world and closely allied groups, because of the very severe influenzal epidemic of 1918, and lesser but still severe epidemics occurring regularly since 1918 realize the great economic loss caused by simple influenza. We fear the complications and sequels of this scourge. A case of acute influenzal bronchopneumonia seen in private practice last September suggested the probability of another epidemic during this year. Later, several cases of the mild type, showing an unusual kind of bronchial inflammation, stimulated this study of all the influenza patients treated. The epidemic grew, however, to such proportions that time did not permit the keeping of accurate records of all private practice cases, or to cross index all records of private practice cases for ease in reviewing these records later. Therefore, all hospital cases, and only enough private practice cases to make a total of 100 are used in this analysis.

STATISTICAL COMPARISONS

The 1918 epidemic was responsible for 500,000 reported deaths. There were reported 100,000 deaths in 1920, and 18,000 in 1926. The epidemic we have just passed through, 1928-29, placed upon record, 26,000 deaths up to January 5, 1929. U. S. Public Health Service reported for the week ending December 22, 1928, from 45 states 252,016 cases, as against 141,000 cases the preceding week; illustrating the rapid spread from one week to the next.

Reports on January 5, 1929 indicated that the epidemic was heaviest in the mountain

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tates of Montana, Nevada, Colorado and New Mexico. The report further states that the epidemic is just making its appearance in the east. This was our experience in this immediate locality. A few cases appeared in late November and early December; immediately after Christmas the cases increased and during January the increase gathered momentum; the peak was reached at the end of January.

Report on December 19, 1928 from Alaska says that 74 of 75 whites, and 350 of 380 Indians, are ill with influenza.

February 9, 1929 reports that the epidemic of influenza which recently swept the U. S. is now epidemic in Europe and other countries. London is crippled by absence of employees. Warsaw reports 100,000 cases, mostly mild.

The 1928-29 influenza epidemic originated in the western section of the United States and spread eastward and across to the British Isles and Europe.

The greatest mortality, to January 5, 1929, occurred in the western United States. It appears that the epidemic, while attacking a large number in the eastern United States, will not show with final statistical returns all in, a large death rate. The morbidity rate for this immediate locality of south Jersey is very low.

ANALYSIS OF 100 INFLUENZA CASES

This study begins with a case of influenza in private practice outside the hospital, seen in September 1928, in a young man, and complicated by moderately severe bronchopneumonia; and is completed by a case of influenza in a 60-year-old female with moderately severe bronchitis and complicated by conjunctivitis. The cases between these are from public ward, private room and private ward, student and graduate nurses, of the Atlantic City Hospital, and from private practice.

The following tabulations show the number of each class, white cell counts, complications, etc.

TABLE 1—HOSPITAL CASES

Public Ward (Nov., Dec., Jan.)	11
Nurses Infirmary (Nov., Dec., Jan.)	

Students	25
Graduates	2
Private Rooms and Wards (Nov. to Mar.)	8
Total Hospital Cases	46

PRIVATE PRACTICE

Outside of Hospital (Sept. to May)	54
Grand Total Cases	100
Ages: 3 to 75 years—Males, 20; Females, 80 (Nurses, 27; Other Females, 53)	

The above comparison is obvious; i. e., excluding nurses from the sex ratio, because they are all women, it seems that in this small number of cases a little over twice as many cases occurred among females as among males. Most of the 100 patients were in the second and third decades of life.

TABLE 2

BLOOD COUNTS, CULTURES AND SPUTUMS

The white cell count in 40 cases shows the following:

Low white cell count, leukopenia, lowest count 3200—18 cases.

Complications in this group: pneumonia, otitis media, sinusitis.

High white cell counts, leukocytosis, highest count 49,000—22 cases.

Complications in this group: pneumonia, otitis media, sinusitis, influenzal meningitis.

Our experience with the white cell curve in 40 cases corresponds with studies made by other observers. The white cell count does not always aid in foretelling the possibility or the character of complications. The only conclusion apparent is that the white cell counts indicate the protean nature and mystery of influenza.

Blood cultures of a small number of cases were negative. Sputums of a small number of cases were cultured and B. Pfeiffer obtained in a few, but the number thus studied was too small to be of any real value.

A mild secondary anemia was discovered in 25% of the bloods counted, but these cases were considered as secondary anemias before influenza affected their bloods.

TABLE 3

Complications	Number of Cases
Otitis media (unilateral 13; bilateral 2)...	15
Sinusitis	4
Bronchopneumonia	13
Antrum of Highmore infected.....	1
Conjunctivitis	4
Mastoiditis (bilateral 2; unilateral 1)....	3
Sinus thrombosis	1
Neurasthenia	2
Meningitis, B. Pfeiffer	1
Pleural effusion	1
Total	45
Deaths	
Bronchopneumonia	1
Meningitis, B. Pfeiffer	1
Total	2

Ear and mastoid complications occurred mostly among the nurses, and in private practice among children. The proximity of cases, and apparent common source of infection, did not seem to be responsible for ear infections. More nurses escaped than were affected by this complication. Two sisters outside the hospital contracted influenza at the same time; one developed double otitis media and later double mastoiditis; the other developed bronchopneumonia. This same situation occurred in other families. The development of complications has a possible constitution basis.

The sinus complications were easily cured by our nose and throat colleagues, and the 1 case of infected antrum, although loaded with pus, readily cleared up.

The sinus thrombosis occurred to W. G., 20 years old, a student nurse. Her first admission was on our service during the first week in December for a mild attack of influenza from which she fully recovered. Her second admission was January 22, about 6 weeks later, for a more severe attack of influenza complicated by acute otitis media. Her third admission was on the succeeding service under Dr. Samuel Barbash, when mastoiditis developed and she was operated upon. After several days of satisfactory progress, sinus

thrombosis developed, but she has recovered.

Conjunctivitis occurred in 3 female children and a female adult of 65 years. These cases cleared up rapidly under 0.5% protargol solution.

Two very definite cases of neurasthenia developed; a single female, 40 years old, clerk, and, a divorced female, 35 years old, also a clerk. The first patient shows signs of developing Parkinsonian syndrome. The second is apparently recovering. The first patient comes in frequently for treatment.

Meningitis, due to B. influenza, which was recovered from spinal fluid, was case No. 5905, admitted December 18, 1928; written up in detail by Dr. H. Warden, our medical intern, and will appear as a separate case report. The 20,500 leukocyte count interested me. Two of my colleagues in a similar case report, record a count of 37,500.

The pleural effusion case was the first of its kind in the experience of this service. F. W., 11 years old. Influenzal pneumonia, right base, confirmed by x-rays. A pneumonia fever curve became a septic fever curve. A small area of egophony was discovered over center of right base posteriorly; aspiration, obtained 3 c.c. fluid which was sterile on culture. The temperature in 48 hours hit normal and so remained. Patient in best of health June 1; 3 months later.

The bronchopneumonia death was exactly like the pneumonias, clinically, that died during 1918; i. e., history of cold for 5 to 7 days, then rather sudden illness, high fever, cyanosis, wild delirium, and treatment of no avail. Such patients die, apparently, of a very acute toxemia and not from cardiac or respiratory failure. The family history of this patient was interesting; all deceased members died of pneumonia.

PULMONARY SIGNS IN UNCOMPLICATED INFLUENZA

A patient appeared in the office complaining of cough and mild fatigue. The temperature was usually 98°, with pulse and respiration normal. The physical examination was negative. No abnormal signs in lungs were discoverable. When asked to take a very deep and sharp or rapid inspiration, patients

could be made to cough, expectorating 1 or pieces of rather tough, yellowish-white or greenish-white mucoid material. They were considered very mild cases of a strictly circumscribed bronchitis, probably influenzal. Such cases occurred in only rather strong adult males under 40. None of this class is listed in the 100 cases above. This is considered important. We have seen a few of these cases, neglected, end in pneumonia.

Febrile cases, uncomplicated were divided into 3 classes. The first class was quite numerous and its chief clinical characteristic was the finding in only one lobe of the lungs, large, soft or low pitched râles, scattered throughout the lobe or widely separated. These râles were few in number and did not occur close together. The incubation period was 24 hours or less; temperature averaged 100.5°, and disappeared within 48 to 72 hours. These patients did not suffer severely, and convalescence was fairly rapid and complete. The larger bronchioles only were involved.

The second class was characterized by numerous, small but not fine, crepitant râles, medium pitched, involving apparently all the bronchioles. The lower lobe of one or lower lobes of both lungs were affected. The incubation was 24 hours, or in some cases was preceded by a mild cold of a few days' duration. The average temperature elevation was 102° and at the end of 5 days became normal; requiring 7 to 14 days to convalesce. The breath sounds were slightly muffled and the percussion note was impaired. The character of the cough in both these types was spasmodic, hard, annoying. Expectoration was yellowish-white or yellow, greenish-white or greenish, soft or hard mucoid material. Some patients coughed and expectorated a little and some a great deal.

The third class, 24 hours' duration of acute illness and 24 hours' duration for existence of subjective and objective symptoms. Convalescence period was 24 hours. Recovery was complete and immediate. Such a case was G., 39 years old, white, a mariner by occupation and at present stationed most of the time on land, as superintendent of a shipping company. Sudden onset; temperature 104°;

chilly sensations; weak; headache, and pains everywhere. The right lower lobe was filled with a vast multitude of high pitched fine crepitant râles. Percussion note distinctly impaired and breath sounds muffled. Diagnosis: Bronchopneumonia, influenzal. At the end of 24 hours the temperature was subnormal, pulse and respiration normal, and the lung was clear of all signs of pathology, apparently having returned to normal. The patient felt so well at the end of 48 hours that he returned to his duties, and he has remained in good health.

EXAMINATION FOR BILATERAL PNEUMONITIS

The presence of pneumonia in both lungs, and particularly when existing in only lower lobes, may be overlooked under certain conditions. Signs of pneumonia appear in the lung that lies uppermost during the examination when patient is in recumbent position. The side of chest against the mattress will appear normal. This is due to compression. The reversal of patient's position reverses appearance of signs of pneumonia, so that the formerly affected side appears normal and formerly normal side appears affected. This condition has, in our experience, been encountered in influenzal bronchopneumonia, and bronchopneumonia from other causes, but never in lobar pneumonia. It also has been encountered in only females advanced in years or weak younger females, and has never been seen in males.

INFLUENZAL PNEUMONITIS RESEMBLING EARLY TUBERCULOSIS

Four such cases appear in this series, 1 each in November, December, January and February. Two were female children, one of which had large soft râles in upper right lobe. No sputum obtainable. Recovered within a week and is thoroughly well today. The other child was taken suddenly ill, and expectorated blood once. At first examination, râles or other pathology not demonstrable. At a later examination crepitant râles were heard over the upper midsection of right lung posteriorly. This corresponds to the picture of a hilus pneumonitis. X-rays showed pathology of upper part of right hilus, not distinctive of tuberculosis, however. There was no

expectoration after the hemorrhage, therefore the sputum was not examined. The case was diagnosed tuberculosis because of symptoms and history of mother and grandfather. While subsequent developments seem to prove case to have been influenza, we are not quite satisfied that it might not be a very incipient tuberculosis occurring during an influenza epidemic or aggravated by an attack of influenza.

Case No. 5522, a 26-year-old white male, had a few râles in left apex. Sputum examinations, x-rays and clinical studies could not prove tuberculosis; was probably only an influenzal pneumonitis. There was blood or blood streaked sputum in only one case. All cases apparently fully recovered.

The pulse during this epidemic did not resemble the typhoid syndrome. During the 1918 epidemic in the very early stage, I saw cases that were so much like typhoid that I diagnosed them as such and very soon had to change the diagnosis. Indeed, a few of these patients recovered undiagnosed before I realized that they were influenza. I did not see one case of this type during this last epidemic.

TREATMENT

Time permits only a statement of my opinion about treatment, without explanation. There is no specific cure, no one drug or group of drugs, no serum or physiotherapy method that will cure or prevent influenza and its complications. The treatment is symptomatic, good nursing care and careful examination. The after treatment is important, particularly in patients who have been very ill, in those cases where tuberculosis was suspected, and in those that remain neurotic.

The most dangerous sequel is lethargic encephalitis. In the absence of something better, it is wise to supervise suspected probabilities and keep them in good health by injections of iron and arsenic, sufficient rest, and proper vitamin diet.

CONCLUSIONS

The epidemic just passed through was the fourth in 10 years and was more extensive and the death rate greater than in 1926. The

eastern United States and Europe experienced a mild form compared with the western United States.

The experience upon which this study based, shows about 50% of cases suffering from complications; 50% of complications were confined to ears and nasal accessory sinuses; 25% or more of complications involve the lungs, chiefly as pneumonia.

The office patient, always, and especially during an epidemic, who is seeking advice for an apparent minor ailment, needs careful examination and wise direction.

Prognosis needs to be carefully guarded in both directions; i. e., as to severity expected and as to lightness and lack of danger of the attack.

The term "intestinal gripe" is used too carelessly. A great variety of conditions not at all related to influenza are labeled intestinal gripe.

Bed-side experience beginning 18 years ago with this disease called influenza, experienced with the epidemics from 1918 to date, and study of the literature forces the conclusion that this disease remains an interesting problem.

DISCUSSION

Dr. Clarence L. Andrews (Atlantic City): don't want to prolong the meeting and I do not know that I have anything to add except that one or two points ought to be emphasized. Dr. Sealan brought out the fact that a greater number of women than men had influenza. That might be ascribed to the fact that women do the nursing in the home and are more exposed than men.

I think another very important point which didn't have time to go into is importance of the leukocyte count early, because of the great number of complications that influenza is likely to bring about. As you know, you get ordinarily leukopenia. If you get other complications, such as an abscess, there is usually a rise in the leukocyte count; if it is only 6000 or 7000 with leukopenia, you have the potential of 10,000 or 12,000 just the same as if you had ordinary leukopenia without that influenza. You get the same condition in typhoid fever.

In Atlantic City where we see a great many people who have had severe illnesses and come here to recuperate, we are very much struck by the evident lack of care given to cardiac sequelae in these cases. There is no organ in the body that needs to be watched so carefully as the heart. And there is any one word you might use in the matter of treatment for this particular disease, it would be *rest* and more *rest*.

GONORRHEAL SEPTICEMIA AND ENDOCARDITIS*

E. KRAMER, M.D., AND J. V. SMITH, M.D.,
Perth Amboy, N. J.

Gonorrhea is no longer considered as a local process, with local complications arising by direct extension and with distant foci due to secondary infection. In the past it was thought that the gonococcus infected mucous membranes only, and that metastatic involvement was due to secondary pyogenic invasion. The number of authentic reports of cases in which the Neisserean diplococcus has been recovered from the blood stream, as well as from various distant foci, removes all question as to ability of the organism to attack many different types of tissue. These reports include, not only instances of severe vascular complications, in which recovery of the organism is comparatively frequent, but also cases of metastatic and local involvements, associated with febrile reactions, wherein the greatest difficulty is encountered in cultivation of the gonococcus from the blood. It is, therefore, evident that the organism is capable of exciting septicemia in a large proportion of cases, and when this takes place there is apparently a predilection for localization in the synovial membranes of the joints and tendon sheaths as well as the endocardium. It is very reasonable to assume that every case of metastatic gonorrheal involvement is preceded by a septicemia, of longer or shorter duration, during which time the organism can be recovered from the blood. It is probable that if sought for more often and more carefully many cases of local complication with systemic reactions, and even uncomplicated early acute febrile urethritis, would reveal gonococci in the blood stream. In many cases the diplococcus in the blood stream causes only transient febrile symptoms, while in others, due supposedly to some peculiarity of the strain of organism or to some local tissue change, metastatic lesions occur.

It is only too true that it is very difficult to recover gonococci from the blood stream even when a gross vascular lesion like gonorrheal endocarditis is present. Some men have explained this on the basis that the gonococcus is only a transient inhabitant of the blood stream; others on the basis of variance of strains. Routine search for the gonococcus in the blood stream of every case of urethritis may some day prove that which many men have thought—that gonorrheal septicemia is of common occurrence. We believe that time will show that the organism can invariably be recovered from the blood stream at certain phases of the disease, particularly during periods of systemic reaction.

Clinical experience serves to strengthen the conclusion that septicemia frequently accompanies gonorrhea. The systemic reaction of some of the regional complications is far out of proportion to apparent severity of the local inflammatory process. Similarly, the occasional severe general reaction seen at the onset of an apparently uncomplicated acute urethritis, as well as the mild continued fever seen with the same condition, would indicate that the organisms have gained entrance into the blood stream. Gonococci have been recovered from the blood of such patients and it is probable that septicemia is an essential feature of many cases of local gonorrheal involvement, as it must be in all cases of metastatic infection.

Of the metastatic manifestations of gonorrheal septicemia, endocarditis is the most severe. Although the morbidity of the other metastatic involvements may be very high, gonorrheal endocarditis has a mortality which approaches 100%. Usually it follows rapidly on an acute gonorrheal urethritis which has already shown local or metastatic complications. The incidence of accompanying gonorrheal arthritis may be as high as 68%. On the other hand, cases have been discovered at necropsy in which frank active urethral infection could not be demonstrated.

Headache, lassitude, pain in the loins, high intermittent fever, violent chills and sweatings, petechial hemorrhages of the skin and mucous membranes, rapidly developing anemia, hematuria and marked leukocytosis, are

* (Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 14, 1929.)

among the cardinal symptoms. The course is usually rapidly fatal, although some cases pursue the course of subacute bacterial endocarditis caused by streptococcus viridans.

The vegetative and ulcerative involvement of the heart valves is of the most severe and extensive type. Destruction may involve the aortic wall; giving rise to acute aneurysmal formation. The heart musculature may be involved in a suppurative myocarditis. Mural involvement of the ventricles, papillary muscles and chordæ tendinæ occurs, and acute pericarditis is not uncommon. Scarcity of mitral involvement and high percentage of aortic and right sided invasion shows the preference of the gonococcus for valves not previously affected by verrucous endocarditis.

Cases have been reported (Silvestrini, Withington, Dieulafoy and Marfau) of proved gonorrheal septicemia with every evidence of endocarditis or pericarditis in which recovery followed. However, gonorrheal endocarditis should be considered a very malignant process, pursuing a progressively fatal course. It is well to remember that the gonococcus is accountable for more than 10% of acute malignant endocardites. It is, therefore, evident that cardiac gonorrheal infection is by no means unusual, and since demonstrated septicemia may exist in connection with various complications other than endocarditis, it is probably true that the latter is an important feature in a large number of febrile gonorrhea cases.

Case 1. On August 30, 1927, C. A., male, aged 29, was seen by one of us at his home. Several months previously he had been under care of a physician for acute gonorrheal urethritis complicated by epididymitis. About 3 weeks before the first visit he had received a number of intravenous injections of some unknown medicament. Aside from this his past and family histories were irrelevant. He complained of having daily chills, fever and profuse sweatings for 2 weeks. Appetite had been poor during this period and he had lost considerable weight and strength. Vomiting had frequently accompanied the rigors.

Physical examination revealed a male adult acutely ill, with a temperature of 104.2° orally, and a pulse rate of 130. The heart was

enlarged to the left; tones were short and muffled, rapid in rate, but rhythm was regular. Lungs were normal. Liver and spleen were not palpable. There was a thin purulent discharge from the urethral meatus, and the left epididymis was hard and indurated. The skin was pale and pasty but there was no edema. The eye-grounds were normal. No petechial hemorrhages were noted on the skin or mucous membranes.

Laboratory findings: Urine was negative except for occasional hyaline casts, few pus cells and small amount of albumin. Blood Wassermann was negative. The hemoglobin was 60%; R.B.C. 3,800,000; W.B.C. 16,000. Blood Widal negative. No malarial parasites were found in the blood stream. Smear from the urethral discharge revealed numerous Gram-negative diplococci. Repeated blood cultures revealed no growth.

Gonococcus vaccine was administered in dosage of 0.5 to 1 c.c. on alternate days until September 8, 1927, but chills and fever remained unabated and condition of the patient grew steadily worse. At this time the pallor was more marked; pulse collapsible and rapid. Examination of the heart revealed a harsh systolic murmur at the aortic area and a high-pitched blowing systolic murmur in region of the cardiac apex. These symptoms were ascribed to a gonorrheal septicemia and on September 9 it was decided to administer 20 c.c. of 1% mercurochrome intravenously. Six hours after its administration the patient expired suddenly; probably as result of embolism.

Case 2. J. E., male, aged 41, was first seen by one of us December 1, 1928, with a profuse, thick, yellow, purulent urethral discharge of 3 days duration. Exposure had occurred about 1 week before. In addition to the discharge, patient had a temperature of 101°, and complained of very severe pain in the left ankle, right elbow, and left wrist joints. General malaise was marked and he appeared very ill. Aside from moderate dysuria, no other urinary symptoms were complained of, and past and family histories were irrelevant. The essential findings were as follows: A red inflamed urethral meatus, exuding thick purulent material; normal testes

and epididymis; moderate bilateral inguinal lymphadenopathy; active inflammation with little swelling in the left ankle, right elbow and right wrist joints; heart and lungs normal.

Laboratory findings: The urine was cloudy in the first glass, due to purulent material; the second glass was turbid. Smear of the urethral discharge revealed numerous extra-cellular and intracellular Gram-negative diplococci.

Local urethral treatment was instituted, using instillations of 1/4% protargol. Sandalwood oil was given by mouth and 20 c.c. of 1% sodium iodide was injected intravenously every other day for 5 doses. On the fifth day 3 min. of gonorrheal vaccine was given by subcutaneous injection, and each day the dose was increased by 1 min. until patient received 15 min. a day.

On the third day following the first injection of sodium iodide, the pain had subsided in all other joints and the process became localized to the right knee joint; which was swollen, extremely tender and the slightest movement caused severe pain. After several weeks of treatment the local process in the urethra began to subside, the discharge becoming more mucoid. However, the general condition remained the same; a low grade fever persisting and the pain, swelling and tenderness of the right knee showing no tendency to subside. Diplococci were found repeatedly in the smears. At the end of the fifth week a cast was applied to the right leg, giving considerable relief. For 1 week following, the patient seemed to be slightly improved. During the seventh week almost complete anorexia set in and he became very dull and apathetic. Daily chills, sweats and fever occurred; began to fail rapidly; marked pallor and rapid loss of weight became noticeable.

A complete examination was conducted on January 18, 1929, in consultation with Dr. Wetterberg. The lungs were found to be normal on percussion and auscultation; heart was slightly enlarged to the left and downward; systolic thrill was found at the apex; tones were very rapid, with reduplication of the second; rhythm regular and quality poor; distinct soft pericardial rub heard to right of the apex; no other murmurs noted. No pete-

chieal hemorrhages were found in the skin or mucous membranes. No abdominal masses nor organs were palpated.

Laboratory findings: Blood pressure 60/30. Urine contained large numbers of pus cells and a few red blood cells. Blood: W.B.C. 40,000; R.B.C. 3,500,000; H.B. 60%; culture on glucose ascitic media revealed no growth.

The opinion was unanimous that the patient had a septicemia and probably an acute malignant pancarditis; 36 hours later the patient was dead. No autopsy could be obtained.

Case 3. M. G., female, aged 32 years, married, was admitted to the Perth Amboy City Hospital March 18, 1929. History revealed that she had gonorrheal rheumatism several years before, for which she was treated by one of us. At the time of admission she had been ill for about 1 week, with fever and indefinite lower abdominal pain, onset of which had been acute. Pupils reacted to light and accommodation and no petechial hemorrhages of the conjunctival or buccal mucosa were noted. Teeth were carious. Examination of the chest revealed rapid respiratory movements; heart was not enlarged, the tones were rapid, but rhythm and quality were normal; no thrills, murmurs or rubs. Examination of the abdomen revealed slight tenderness in the left lower quadrant. Vaginal examination revealed tenderness in both fornices and thickening of both adnexal regions.

During the patient's stay in the hospital the clinical picture was that of marked sepsis. The temperature was intermittent in character with a daily rise to 104° or 105°. Marked sweatings and chills accompanied the daily rise; acceleration of pulse and respiratory rates occurred in keeping with temperature elevations, pulse rate ranging from 90 to 140 and respirations from 20 to 40.

After about a week a soft systolic murmur was noted at the apex, and shortly thereafter came pain in the right ankle joint with very little swelling. The general condition was becoming progressively worse and it was evident that she was succumbing to an overwhelming sepsis. On the second of April, 20 c.c. of mercurochrome was given intravenously, and death followed in about 10 hours.

Laboratory findings: Cervical smears revealed intracellular Gram-negative diplococci. Red count varied between 3,500,00 and 3,810,000; hemoglobin between 60 and 65%; polynuclears 82%; lymphocytes 18%. Urine examination showed a few granular casts, few pus and blood cells. Blood culture taken March 29, revealed a growth of Gram-negative diplococci which resembled the gonococcus; this was confirmed at a subsequent examination. The culture media used was brain-heart infusion and brain-veal-agar prepared by the Digestive Ferment Company.

In all these cases the clinical picture was such as to make the diagnosis of gonorrheal septicemia and endocarditis almost certain. In the last case, with the use of special media, the organism was picked up in the blood stream. The use of improper media probably accounts for failure to cultivate the organisms in the other instances.

DISCUSSION

A recent paper by J. S. Grove, of Chicago, contained a statement which seemed very interesting to us: "It appears that Europe takes its venereal diseases much more seriously than we do, because in talking with various workers in the field they are all impressed with the decrease in the number of cases being seen. * * * * Although a decrease has been noted in the incidence of gonorrhea, still they are noting many cases of severe complications, especially gonorrheal endocarditis." It is pertinent to wonder whether this is coincidence, or whether widespread effort at prevention of the disease is resulting in a more susceptible host and a survival of the more virulent strains of the organism. On the other hand, it is possible that the newer tendencies in treatment of the disease may be accountable to some extent for an unprecedented increase in a fatal complication. In a personal communication from Dr. Grove, we are informed that in the particular clinic in which the above observation was made acute gonorrheal urethritis was treated by intravenous injections of empiric medicaments

in addition to local treatment. In the management of our cases it will be noted that intravenous medication was used. In 2 cases the intravenous medicaments were used on an empiric basis for complications before symptoms of marked sepsis had set in. In 2 cases mercurochrome was given intravenously as a last measure in a frank condition of gonorrheal sepsis.

The natural reaction in a situation of this sort is to question the rationale of the therapy that has been used. Following the outcome of these cases, doubt began to arise in our minds as to whether intravenous therapy could be used with impunity in the severe forms of gonorrhea. More careful consideration of the pathology and mode of spread of the disease resulted in a growing conviction that use of intravenous medication in certain forms of gonorrhea is not without danger. We are presenting our unpleasant experiences, and in doing so wish to sound a note of warning. We all know that the treatment of no disease requires more frequent propaganda of conservatism than does gonorrhea. We believe that our experiences in these cases entitle us to urge a much more conservative attitude toward intravenous therapy in all forms of gonorrhea, but especially in those metastatic involvements where a co-existing septicemia makes fatal vascular invasion a dreaded possibility.

The empiric use of intravenous medicaments has become quite popular. It seems significant that such therapy has received the stamp of approval in many of our representative clinics. It has been advocated most strongly in those cases of severe local and metastatic complications which, as previously mentioned, are probably associated with true septicemia in a high proportion of cases. With the idea in mind that the trauma of intravenous treatment might have an influence in the production of vascular lesions, where potential septicemia is known to exist, the literature was searched for reports of gonorrheal phlebitis and arteritis. Case reports by Ciuffo, Montpellier and Caraes are ample ev-

idence that gonococcus may be the cause of phlebitis. Moore reported a case of arterial thrombosis of gonorrheal origin which was fatal. It is not very far-fetched to assume that the possibility of such a complication is enhanced by repeated venapunctures. Whether or not localized gonorrheal phlebitis may encourage an associated involvement of the heart valve, must remain a matter for speculation. But, one might ask what influence the presence of irritating chemicals in the blood stream may have on the localization of organisms on heart valves in a case of septicemia.

No matter how radical the tendencies have been in the treatment of gonorrhea, the pendulum has always gone back to conservatism. This has been true in the treatment of uncomplicated urethritis, as it has been in the treatment of the local and metastatic complications. In the recent deluge of intravenous panaceas the urologist has been swept along with the rest, and although no fair-minded physician will condemn empiric therapy he should certainly guard against the routine use of empiric measures which may have a decided element of danger. Many conservative men have looked askance at intravenous therapy in metastatic gonorrhea and it is not improbable that the teachings will soon revert to extreme conservatism as far as intravenous therapy in gonorrhea is concerned.

In only 1 of these cases was the gonococcus recovered from the blood stream, but the course of the disease and the clinical picture leaves no doubt as to the other diagnoses. The extreme morbidity of gonorrhea would be sufficient to stamp it as a disease worthy of most serious thought and treatment, but the demonstration of a definite danger of fatal septicemia should induce every physician to treat the febrile local and metastatic complications with considerable conservatism and respect.

The occurrence of 3 fatal complications of gonorrhea within a limited period in a relatively small community is very unusual. On

the other hand, it may indicate a general increase in this dreaded catastrophe. Gonorrhea in its febrile stages, whether due to local or metastatic complications, is considered by many to be associated with a true septicemia and no form of therapy should be used which may have even a remote influence in localization of the organism in the vascular and valvular apparatus. We believe that routine empiric intravenous therapy in many forms of gonorrhea increases the possibility of the transition of an ordinary bacteremia into fatal septicemia. We believe this note of warning is fully as important as the arousing of enlightened medical opinion against abusive and irrational forms of local treatment.

DISCUSSION

Dr. Louis F. Wetterberg (Woodbridge): I wish to commend the authors, not only for the excellence of their paper but for bringing to our attention that the gonococcus is not only potentially dangerous, but it may at any time produce a septicemia, which is progressively dangerous.

There is another thing which I don't think we should let go by and that is the time of appearance of the general infection after appearance of the original local infection. There seems to be no fixed relation. There are times when even with acute urethritis there will be general sepsis. In other cases there will be a general disappearance of all local signs. In the last case which I saw there were no localizing signs in spite of a history of chronic gonorrhea until the acute flareup of a salpingitis; there then followed an acute sepsis and death in 8 weeks.

Dr. Samuel E. Kramer (Closing): I particularly wish to emphasize a more conservative attitude in the use of intravenous injections of sodium iodide, urotropin and other types of medicaments that are being sold in ampoule form. Many men are using this type of therapy for the more simple gonorrheal complications, such as epididymitis and prostatitis. It is that type of therapy which I believe has an element of danger, which may not be very great, but which is nevertheless very real.

Although reports have appeared where men have used mercurochrome intravenously for the simpler types of gonorrheal complications, most men use the drug in this form only when the appearance is that of almost surely fatal termination. In 2 of our 3 cases mercurochrome was used intravenously only as a last resort, where apparently the patient was going to die. In 2 cases intravenous injections of medicaments put up in ampoule form were used at the inception of gonorrheal arthritis.

Although I cannot prove what I say, I believe that the repeated intravenous injections of sodium iodide in 1 case, and the unknown drug in another, in the earlier stages of the disease may have been an influence in the subsequent development of the fatal sepsis.

RESULTS OF STABILIZING OPERATIONS ON THE FEET*

B. FRANKLIN BUZBY, M.D.,
Camden, N. J.

The question of what to do with paralytic and club feet, so that the patient may be able to take full mechanical advantage of what muscle power he has remaining, is one that has caused much discussion.

In this paper, the writer takes for granted that every one now is agreed that tendon transplantation, by itself, gives way after a time and any such operation to be of value must be accompanied by an operative procedure on the bones and joints which will render the joint attacked permanently stiff and do away with the possibility of deformity recurrence.

This report is based upon the results obtained in 109 operations upon 92 patients, treated in the writer's service at Cooper Hospital, Camden, in the 6 years ending January 1, 1929.

Operation	Operations	Accompanying Tendon Trans- plantations	Patients
Subastragalar arthrodesis	44	8	36
Horizontal transverse section . .	17	5	16
Median tarsal arthrodesis	19	13	16
Cuneiform tarsectomy	19	1	16
Campbell bone block	7		5
Metatarsophalangeal arthrodesis 2			2
Panastragalar arthrodesis	1	1	1
	109	28	92

No astragalectomies are included because it is felt that the tendency to varus position which always follows, plus the fact that the leg is always made shorter by removal of this bone, make the operation one with very few indications. In its place is done the horizontal transverse section as devised by Davis, which gives lateral stability, full length of the limb and no tendency to late oncoming inversion of the sole.

In subastragalar arthrodesis, the operative

technic consists briefly in open destruction of the astragalocalcaneal and astragaloscaphoid joints, followed by a plaster cast, to hold the foot in midposition (between valgus and varus), which is worn for 10 to 12 weeks and is followed by a brace to maintain the same position for at least 6 months longer.

In horizontal transverse section, an osteotome is driven in a horizontal plane through the subastraglar joint and through the body of the scaphoid anterior. After separating the lateral ligaments of the ankle from the bones of the foot, the foot is pushed back about 1 in. so that the heel is very prominent. Postoperative fixation is the same as in the subastragalar arthrodesis.

In arthrodesis of the median tarsals, the astragaloscaphoid, scaphoid internal cuneiform, and internal cuneiform-first metatarsal joints are destroyed either with or without tendon transplantation and arthrodesis of other joints of the foot. Postoperative fixation is as noted in the above conditions.

In cuneiform tarsectomy, a wedge of bone is taken out of the bones of the foot without paying any special attention to the joint spaces or lines, either crossing them or including them in the section, the main idea being to reduce bony deformity and improve stability by removal of excess bone on the convex side of the deformed foot. Postoperative fixation consists of a cast which holds the foot with the deformity slightly over-corrected, followed by a brace to be worn for about a year.

The bone block to toe drop, so beautifully done and described by Dr. W. C. Campbell, of Memphis, entails piling up a mound of bone on the upper surface of the os calcis and tightly against the astragalus, which when it becomes solid acts as an internal brace to prevent toe drop by the upper end of the new bone deposit striking against the posterior aspect of the tibia. This procedure is accompanied practically always by some stabilizing operation on the subastragalar joint from whence the bone is obtained to form the mound. Cast and brace fixation is maintained for 8 to 10 months with the foot in the mid-position of varus and valgus and with the foot dorsiflexed not quite to a right angle.

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Metatarsophalangeal arthrodeses are done by means of an osteotome which destroys the articulating surface of the bones making up the joint. Bony union postoperatively is difficult to obtain but the fibrous union thus obtained by fixation for 4 to 6 weeks is ample for the results desired.

Panastragalar arthrodesis, consists in the exposure and destruction of the joints on the superior, anterior and inferior surfaces of the astragalus, thus causing permanent ankylosis of the ankle, astragaloscaphoid and astragalocalcaneal joints. Postoperatively, cast and brace fixation in the position of election for about a year is necessary.

The indications for the operations herein enumerated and reported are very definite. Subastragalar arthrodesis is done whenever lateral stability of the foot is desired and since it is in this joint that all lateral and rotatory motion of the foot takes place, we must attack and destroy the joint to do away with this motion. If the anterior or posterior tibial muscle, or both, are weak or paralyzed the foot goes into valgus, or if the peroneal muscles are thus involved varus deformity results. Fusion of the subastragalar joint does away with these tendencies and also permits the remaining dorsiflexor muscles of the foot to work at a better advantage.

Horizontal transverse section is the operation of choice, rather than astragalectomy, for reasons enumerated, in flail foot, flail leg, and in calcaneus, calcaneovalgus and calcaneocavus deformities—all of paralytic origin. If we bear in mind what happens eventually in a well done operation of this character it will not be difficult to see why the results are good. In the first place the line of operation goes through and destroys the subastragalar joint, preventing lateral instability; the heel is displaced backward, making the weight be borne more in the center of the foot; the strong unopposed muscles in any type of calcaneus deformity are put at a disadvantage and any weaker muscle transplanted to replace the calf is better able to equalize in pull the opposing group. The bearing of weight more over the midtarsal joint than is normal, naturally will flatten down any existing cavus deformity and prevent its recurrence. Then,

there forms also at the front end of the horizontal plane in the scaphoid sufficient callus to act as a definite bony block to dorsiflexion of the foot. It is because of this fact that persons with flail legs and feet are gotten to walk without support; in that if when the foot is put in plaster postoperatively it is placed in slight equinus, so that it will never again dorsiflex above a right angle, when the patient walks the toe strikes the ground first and for the heel to reach the ground the knee must go back to at least full if not hyperextension where it locks, thus preventing collapse of the knee or ankle.

All these results are obtained without removal of the astragalus, thus shortening the legs; without fear of postoperative varus deformity, without altering the angle joint, as occurs after astragalectomy, and with as much general stability as prevails in the alternate procedure.

Arthrodesis of the median row of tarsal joints is indicated in any condition where there is metatarsal equinus or drooping of the fore part of the foot. Often this is just a marked prominence on the plantar surface of the first metatarsophalangeal joint; at other times it is a contracture of the plantar structures with hyperextension of the great toe or all the toes. Whenever there is any remaining power in the extensors of the toes they cause hyperextension or claw foot in their efforts to aid in bringing the forefoot up into proper relation with the heel. If in conjunction with arthrodesis the plantar fascia is stripped from the os calcis, by the Steindler technic, and the overacting great toe extensor is transplanted, after division, not into continuity, into the distal end of the first metatarsal on the mesial aspect, the foot holds its normal shape and the transplanted tendon acts as a very satisfactory dorsiflexor of the foot.

Cuneiform tarsectomy is indicated wherever there is a bony deformity of the foot impossible to reduce by division of contracted soft tissues. The base of the wedge is always on the convex side of the deformity and is outlined regardless of how it may cross foot joints. It is occasionally accompanied by tendon transplantation but more

often only by a stripping of structures from the inferior surface of the os calcis, which really is a transplantation of tendons because the loosened structures reattach themselves further forward to the os calcis.

The only indication for Campbell's bone block is "toe drop". Sometimes it is done even though there is some power for dorsiflexion of the foot, and perhaps in conjunction with arthrodesis of the median tarsals. It requires, however, for good functional results, that there be power to plantar flex the foot so that the gait will be somewhat elastic when the toe is placed on the ground.

Metatarsophalangeal arthrodesis should be done only when the toe flexors are hyperactive or unopposed and where there is a prominence dorsally of these joints and the toes held in continual flexion contracture.

All the benefits that can be obtained by panastragalar arthrodesis can be had by horizontal transverse section except where the ankle mortise is so wide that even though the rest of the foot should be stabilized there would still be lateral mobility of the foot, often painful, occurring in the ankle itself; an unnatural motion. Naturally, patients are infrequently met with showing this single uncommon indication.

The age at which any of these stabilizing operations is done is quite an important factor in obtaining good end-results, and it is my belief that no bone fusion operation in the foot should be done before it is shown by radiograph that bony development of the foot is sufficient so that if all cartilage is removed from the articulating surface union will still be very firm when healed. No patients should be arthrodesed before the age of 7 years, and in cases of flail foot and leg where we have lack of bony development from disuse the patient should be even older. The youngest in the series here presented was 7 and the oldest 48, the average being 12.9 years.

Since the result desired is bony union in the joint attacked, it is most essential that all cartilage be removed from the joints and that, as in fractures, we have proper postoperative apposition without too wide separation between bone ends, because this factor, wide

separation, is the normal state postoperatively in foot fusions while in fractures it is difficult to obtain, and then only by too much traction. In cases where bony development is insufficient, more cartilage must be removed and the defect to be filled in with callus is greater. Therefore, the younger the patient, the more difficult to obtain bony union and the longer it is necessary postoperatively to maintain fixation.

The most striking clinical results were obtained in cases in which horizontal section and cuneiform tarsectomy was done; all such cases giving uniformly good fusion, position and function.

Of the 44 subastragalar arthrodeses, 37 had solid bony union throughout the entire subastragalar joint including the astragaloscaphoid joint, and 7 obtained good fusion in the astragalocalcaneal but poor or none in the astragaloscaphoid joint. Each one of these that failed to obtain full fusion was $8\frac{1}{2}$ years of age or younger, and 2 had almost flail legs. As these latter patients began walking and bearing full weight without brace support, what obtained was an adduction or abduction of the fore-foot for the relief of which it will be necessary to fuse the midtarsal (Choparts) joint, that between the astragalus and scaphoid, and the calcaneus and cuboid. This has been done in 3 cases but they are not included in this report. The causes of these failures may be several: First, the bony development in the younger patients, while apparently sufficient as viewed radiographically, have been too poor. There might not have been sufficient cartilage removed. When the cartilage was fully removed the ensuing bony defect might have been so great in this joint that a condition of non-union followed. I am certain that 1 case followed persistent walking by the patient for 5 weeks, beginning at 3 weeks after operation, during which time his cast became completely worn out on the sole and the fore-foot went into valgus position, that which was present preoperatively.

Median tarsal arthrodesis always gave good bony union in the scaphoid-internal cuneiform and the internal cuneiform-first metatarsal joints, but 3 cases, again in children under 9 years of age, failed to fuse solidly in the as-

tragaloscapoid joints. In 1 case there has been a tendency to cavus deformity as a result, at the midtarsal joint, but the fore-foot remains in good position. Function in these 3 is good; due I believe to action of the transplanted extensor proprius hallucis in each case to the inner side of the distal end of the first metatarsal, which permits the patient to dorsiflex the fore-foot to or beyond a right angle and overcomes the symptoms referable to the metatarsal equinus position. The cause of these 3 failures may have been too large a bony defect in the joint in question, caused by removal of too much cartilaginous tissue from the convex astragalus head and concave scaphoid articulation.

The Campbell bone block operation accomplished its purpose in each case done, namely, to prevent toe drop, but all the cases had accompanying arthrodeses of other joints and whether through inexperience in examining these cases postoperatively or because of warped judgment as to how I should find these feet, it struck me that the whole foot was a bit more rigid generally than I expected to find. Function was good, however, in every case, but as may be imagined, where a foot dorsiflexes normally only 20-30° beyond a right angle and there is permitted only 5-10° plantar flexion, this abbreviated range of ankle joint motion would naturally make the foot seem rigid especially in the presence of arthrodesis of the subastragalar joint or perhaps the median row of tarsal joints.

The end-results of the 2 cases of metatarsophalangeal arthrodesis were satisfactory as far as function is concerned but neither got bony union; the fibrous union was solid and held the toes away from the permanently flexed position.

The 1 case of panastragalar arthrodesis gave good solid bony union in good position without pain but, of course, there is no spring whatsoever to the walk except through that excessive motion which develops in the midtarsal joint because of stretching of ligaments there, which in this case has been ample.

In conclusion, it would appear that stabilizing operations on the feet, accompanied by tendon transplantation or not, offer by far the best procedure to be undertaken in paralytic or old club feet because:

- (1) The results are uniformly satisfactory and permanent.
- (2) Useful function is obtained by making full use of whatever muscle power may remain.
- (3) Locomotion becomes painless, step firm, and mechanical appliances are dispensed with.
- (4) Appearance of the foot is improved.
- (5) Patient becomes thereby a useful rather than a dependent member of society.

DISCUSSION

Dr. Rutherford L. John (Philadelphia): May I first say a word about the stabilizing operation itself? It is an attempt to fix a joint so that the deformity will be corrected, as opposed to the older fashioned idea of muscle or tendon transplantation for the same purpose. I make this point because in so many cases, families or physicians are perfectly willing to have a tendon transplantation but balk at the idea of doing anything to a joint to make that joint fixed, except in very rare cases. A tendon transplantation alone, to correct a deformity is no longer done. It is almost impossible to absolutely equalize tendon pull. Not only that, but if one transplants a tendon or muscle it will not pull with the same power in its transplanted position as it did in normal position, so that transplantation of tendons alone will either in time make the original trouble worse or cause the opposite deformity. For this reason tendon transplantation alone has been given up and is only used in conjunction with stabilizing operations.

Dr. Buzby said that after a subastragalar arthrodesis he uses a brace for at least 6 months. To me that seems a short time. I use a brace afterward for at least a year, with the idea that the foot must be held in corrected position until the bone is absolutely solid and the joint is entirely obliterated.

I agree with Dr. Buzby as to the age except that probably there also I am a little more conservative. The tarsal bones do not entirely ossify before 9 years of age. I think that is a correct statement. Certainly, if that is true in the normal foot, the paralyzed foot, through disuse, will show a very much later period of ossification. In any case, I think, as Dr. Buzby said, we should use the radiograph as a guide before doing any stabilizing operation. Personally, I will not operate on any patient under 9 years of age and in many cases of a bad flail foot where x-rays show incomplete ossification I cannot operate before the twelfth year.

We agree on the horizontal transverse section and obtain the same results. I have never done an astraglectomy, because I feel that the same

result can be obtained with the horizontal transverse section and without the inconveniences.

I do not know why Dr. Buzby did not mention the midtarsal arthrodesis, for correction of metatarsal equinus. He uses arthrodesis of the inner row of the tarsus for this deformity of dropping of the fore-foot, with over-action on the extensors, the operation devised and advocated by Dr. Ashhurst.

Personally, I feel that the midtarsal joint; i. e., that between the os calcis and cuboid, and the astragalus and scaphoid, is the joint to arthrodize in this deformity. This joint is at a right angle to the long axis of the foot, and is, moreover, at the apex of the deformity. The operation can be done through practically subcutaneous incisions on the inner and lateral aspects of the joint. While the incision line is more or less of a minor consideration, sometimes patients complain of a long scar if it falls under the tongue of the shoe or is pressed upon by the laces.

The greatest objection that I have to the arthrodesis of the inner row is that the epiphyses of the tarsal, and metatarsal bones of the inner border of the foot are more or less destroyed. In time, if the bones of the outer border are left untouched they will outgrow the inner row and there will be a consequent adduction of the fore-foot. I have not seen that condition as an end-result in a midtarsal arthrodesis. I have in several cases of bilateral infantile paralysis done an arthrodesis of the midtarsal joint on one foot and of the inner row on the other and in every case where I have done it the patient has felt much more comfortable in the foot arthrodized through the midtarsal joint. I would like to ask what objections Dr. Buzby has to the midtarsal arthrodesis?

Dr. B. F. Buzby (Camden): I want to stress again the point that Dr. John added about the value of tendon transplantation. Several years ago we saw results, when so-called Whitman operation was being done, that would look fine for a couple of years and then later an arthrodesis would have to be done because of recurring deformity. There is no question that a tendon graft will not hold in the upper or lower extremity if there is any great stress on it.

My advice for using a brace for at least 6 months is applied as a general rule. I believe adults grow bone much faster than do children and the older the patient the less time a brace will be required. I used to believe that 7 years was the minimum age for operation. I still believe that, but I do not think there are many patients who should have stabilizing operations on the feet at the age of 7. I do think, however, in very severe cases we are justified in taking wedges out of the foot at that age.

As to metatarsal arthrodesis, my chief objection, theoretically, to Dr. John's favorite operation, from which he has some very excellent results, is that we do it mainly for a dropping of the head of the first metatarsal. This part of the foot becomes very prominent and sore with huge caluses, and the patient complains of these. It is conceivable to me that if there are 2 joints distal to the arthrodized and they are permitted to be free and to attain the excessive mobility which other joints always attain in a stabilized foot, that these will not give way and the head of the first metatarsal, for which the operation was done, again becomes prominent. That is purely a theory. It is for that reason more than anything else that I prefer the median to the midtarsal arthrodesis.

PROPHYLAXIS OF MEASLES WITH WHOLE ADULT BLOOD*

FREDERIC W. LATHROP, M.D.,
Plainfield, N. J.

For many years investigators have been attempting to discover an efficient prophylaxis against measles. Every year this disease ranks high among the acute infectious diseases as a cause of death in children. From 75% to 90% of these deaths are in children under 5 years of age. It is well known that among young and delicate children, measles is a source of very considerable danger. The work of Tunnicliffe⁽¹⁾ and others promises an active immunizing agent in the relatively near future. Meanwhile, there is a method of prophylaxis at our disposal which deserves more attention than it has yet received. I refer to the intramuscular injection of whole blood of adults who have had measles.

The use of convalescent serum in the prevention of measles now seems to be thoroughly established. The convalescent serum has been used much more extensively on the continent, particularly by the French and the Germans, than it has been in this country. Nicolle and Conseil⁽²⁾ first used convalescent serum as a prophylaxis against measles in 1918. Numerous French and German and a few American writers confirmed their results. Degkwitz,⁽³⁾ in Germany, was able to standardize the dosage fairly accurately. He found the following amounts of convalescent serum were sufficient to protect an exposed child from an attack of measles: Under 3 years, first 4 days of incubation—2.5 c.c.; fifth to sixth day—5 c.c.; seventh to eighth day—7.5 c.c. Over 3 years, use double these amounts. Debré,⁽⁴⁾ in France, using similar amounts, was able to be certain of protecting 97% of his patients. When one remembers that under ordinary circumstances 98% of exposed susceptible children develop measles, his statistics are very illuminating.

In case of the very young or sickly infant,

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there is a very great advantage in protecting him entirely from measles until he can grow a little stronger. However, the immunity from convalescent serum lasts only 3-4 weeks. Therefore, instead of causing a complete but transient passive immunity, Debré has rightly advocated the production of a modified measles, which insures a very mild illness but at the same time protects the child from measles for the rest of his life. His method is to inject 2.5 to 5 c.c. of serum on the sixth to the eighth day of incubation. In this manner he, and others after him, have produced quite regularly a modified measles which runs a very mild course and which is uniformly free of complications. Symptoms of the modified measles are characteristic and easily distinguishable from those of a mild case of measles. These symptoms are briefly as follows: first, a prolonged incubation period—up to 18 or even 25 days; second, almost entire absence of symptoms in the period of invasion; third, a scanty rash largely limited to the trunk, with practically no fever, very little Coryza or conjunctivitis, scanty or absent Koplik spots; and, most striking of all, a complete absence of malaise or any constitutional symptoms, and then a short easy convalescence. There is a uniform freedom from any complications. On several occasions Debré⁽⁴⁾ observed that the tuberculin reaction remained positive, instead of being suppressed as in a severe case of measles. This would give a very definite indication for modifying the measles in a child with incipient tuberculosis.

All writers are agreed that if serum is not given until after the symptoms of invasion have appeared, the serum has no effect in modifying the course of the disease. In order to pick the sixth or seventh day of incubation, it is necessary to be able to calculate definitely the date of exposure. Zingher⁽⁵⁾ states that when 2 children have been in constant contact, the first day of the rash in one child is the fourth day of exposure for the other. Therefore, if the patient presents only Koplik spots but no rash, the other has been exposed for 3 days; if the rash has been present for 2 days, the period of exposure for the second child is 5 days, and so on.

Difficulties attending the procuring of an adequate supply of convalescent serum were early apparent. Degkwitz⁽³⁾ established several municipal depots where convalescent serum was assembled for distribution, and Zingher⁽⁵⁾ attempted the same thing in New York. Such depots, however, are impractical except in the largest cities. In the early part of an epidemic, when it is most important to limit the number of cases, there is no convalescent serum available. Most of us would hesitate to bleed a convalescent child for any large amount, even if the parents were willing enough to give us permission. The technical difficulties of insuring sterility of the serum are discouraging for the ordinary practitioner. For these reasons the use of convalescent serum has not proved very satisfactory.

Rietschel,⁽⁶⁾ in 1921, first advocated use of the whole blood or serum of adults who have had measles. The theoretic grounds for supposing that adult blood would be effective are quite reasonable. It is well known that second attacks are quite uncommon, presumably due to persistence of immune bodies in the blood. Furthermore, the infants of mothers who have had measles are immune until the fifth or sixth month of life, while children of mothers who have not had measles have no such immunity. The adult immune serum when injected subcutaneously in a measles patient during the period of invasion produces a local blanching of the rash⁽⁷⁾. Horse serum and the serum of adults who have not had measles does not exhibit this blanching power.

To be sure, the adult blood does not have the potency of convalescent serum. Debré⁽⁴⁾ found that serum is most potent at about 7 days after the subsidence of fever. After the tenth day the potency falls rapidly, until at the end of 3-4 weeks it has reached a relatively low level. Apparently it remains fairly constant at this level throughout life. Larger doses of adult blood are necessary to compensate for this lack of potency. Zingher⁽⁵⁾ recommended a dose of adult serum 4 times as large as used of convalescent serum; i. e., to replace 2.5 c.c. of convalescent serum, it requires 10 c.c. of adult serum, or about 20 c.c. of adult whole blood.

With adult blood there is the same choice of complete but transient passive immunity through a large dose or permanent immunity through modified measles with a smaller dose. I, personally, feel that the modified measles is greatly to be preferred. Relatively few children in private practice merit complete protection. If they escape measles entirely at this time, they are sure to contract it again at some other time when they may not be under observation. Complete protection requires inconveniently large amounts of blood—from 40 to 50 c.c.—while 20 c.c. given before the fifth day of incubation will insure a modification of the measles in almost every instance.

The availability of adult blood much more than compensates for the larger amount required. As a rule, the mother is only too glad to offer her blood to protect her little one from possible danger. There is not the antipathy which is sometimes shown toward blood or serum from a stranger. When the mother's blood is used, the danger of syphilis is avoided. It is necessary, of course, to guard against tuberculosis or other transmissible disease. The technic is extremely simple. Instead of requiring extensive laboratory apparatus, the whole process can be easily carried out in the home. A third person is required only to hold a struggling child. After preparing the mother's arm and the child's buttocks with iodine and alcohol, 20-25 c.c. of blood are withdrawn in a syringe, the needle is quickly changed for another and the blood immediately injected into the child. All that is required is a very moderate amount of speed, and a most careful aseptic technic.

Cros-Decam, a Frenchman, in an extensive monograph on the subject,⁽⁷⁾ has reported the results of using adult whole blood in 234 cases. He obtained absolute protection in 195, or 83.3%, and modified measles in 19, or 9.7%, giving partial or total immunity in 93%, which compares favorably with the 97% obtained with convalescent serum. Of his failures, 8 received the serum too late, when they were already in the period of invasion, and 12, or 5.1%, had typical measles. Among this 5%, were found the only 2 complications in the entire series of 234 cases:

one had otitis media and recovered, the other had bronchopneumonia and died. Cros-Decam used somewhat larger amounts of blood, in an effort to obtain complete protection. He used 30-35 c.c. blood in children under 2 years, and 50-60 c.c. in those over 2 years old. I believe it is better to use the smaller and more convenient amount of 20 c.c. and produce the modified measles with its permanent immunity.

The question is raised as to any possible dangers involved in the injection of whole blood. Theoretically, with the formation of a hematoma, infection and abscess formation are possible. Practically, if a careful aseptic technic is followed, such an accident is unnecessary. Cros-Decam did not observe it in his cases. He did find occasionally soreness at the point of injection, and rarely a slight fever, both lasting only 24 hours. I have found that when an active child is given the injection intragluteally in the morning, that by evening he is pretty tender where he sits, but if the injection is done in the late afternoon or evening the soreness is all gone by the next morning. One distinct advantage lies in the fact that there is no danger of anaphylaxis or serum sickness when using human blood intramuscularly. There is a slight disadvantage in the lack of certainty in the results. When using convalescent serum one can produce at will either complete immunity or partial protection. With 20 c.c. of whole blood it is difficult to predict whether the child will have modified measles or whether he will escape the disease entirely. One can promise at least a mild attack with confidence, and the simplicity and availability of the whole blood method make it very practical for every day use.

My own experience is limited to 8 cases. Of these, 1 was a complete failure. A 10 months old child was injected on the seventh day of incubation, rather late for the blood to be effective. Seven days later he not only had a fairly severe attack of measles but he also had that rather rare phenomenon, a relapse, with reappearance of the rash, conjunctivitis, coryza, and cough 15 days after subsidence of the original attack. I did not find any Koplik spots during the relapse. Of

the other 7 patients, 3 were protected completely and 4 had modified measles, with a uniform absence of symptoms of invasion, with a scanty rash, very little catarrh, and practically no constitutional symptoms. There were no complications in any of the cases.

Case 1. L. C., age 4 years, given 25 c.c. maternal whole blood on January 30, the fifth day of incubation. Exposed to second use of measles 12 days later, February 11. Coryza and temperature 101° February 27; morbilliform eruption scattered on face and back March 1, 30 days after injection. Apparently well the following day.

Case 2. M. C., (brother to L. C.) age 6 years, given 25 c.c. maternal whole blood January 30, the fifth day of incubation. Perfectly well till February 11, 12 days later. Then had a faint irregular rash; temp. 101° F. No cough.

Case 3. J. H., age 10 months, given 20 c.c. maternal whole blood February 27, on the fourth day of incubation. No measles developed.

Case 4. R. H., (brother to J. H.), age 8 years, given 20 c.c. maternal whole blood February 27, the fourth day of incubation. No measles developed.

Case 5. E. McC., age 5 months, had a single exposure to catarrhal measles January 11. Given 20 c.c. maternal whole blood January 11. No measles developed.

Case 6. M. S., age 18 months, given 25 c.c. maternal whole blood on May 18, the fourth day of the incubation period. Was perfectly well till May 28, when she had a temperature of 104° F. and beginning rash. On May 29, temp. 101° , scattered generalized eruption, mild conjunctivitis and coryza, Koplik spots, and slight cough. No constitutional symptoms.

Case 7. E. B., age 2 years. Bronchopneumonia and otitis media in January 1929. Given 25 c.c. maternal whole blood intramuscularly on May 13, the fourth day of incubation. On May 26, temp. 100° , a few maculopapules on trunk, very slight conjunctivitis and coryza, and a very few Koplik spots. No constitutional symptoms and she was well the following day.

Case 8. C. D., age 10 months, given 25 c.c.

of his father's blood on February 13, the seventh day of incubation. On May 20, moderate rash, conjunctivitis, and cough. Temperature normal May 22. Relapse on March 6, with temp. 102° and malaise. On March 10 a return of the morbilliform eruption, conjunctivitis, and coryza. No Koplik's spots seen during the relapse.

This series is very small, but it bears out the previous reports of the beneficial effects of whole adult blood in the prevention and modification of measles. The technic is so simple and the effects so striking as to warrant a general adoption of the procedure.

SUMMARY

(1) Whole blood of an adult who has had measles, 20 c.c. given intramuscularly before the fifth day after exposure to measles, will either prevent the development of the disease or will produce a modified form of measles.

(2) The modified measles runs a very mild course, with absence of symptoms of invasion, with lack of any constitutional disturbance, and with freedom from complications.

(3) Young children and sickly children deserve the benefit of this protection, which is always available, and which is so simple to carry out.

BIBLIOGRAPHY

- (1) Tunnicliffe, R. and Hoyne, A. J.; Prevention of Measles by Immune Goat Serum; *J.A.M.A.*, 87:2139, Dec. 25, 1926.
- (2) Nicolle, C. and Conseil, M.; Prophylactic Effect of Measles Convalescent Serum; *Bull. et Mem. de Soc. Med. des Hop. de Paris.*, 42:336, April 12, 1918.
- (3) Degkwitz,; Concerning Measles Serum, *Deutsche Med. Wchnsch.*, 48:26, Jan. 5, 1922.
- (4) Debré, R. et Joannon, P.; La Rougeole, *Epidemiologie, Immunologie, Prophylaxe*, Masson et Cie., Paris, 1926.
- (5) Zingher, A.; Convalescent Whole Blood Plasma and Serum in the Prophylaxis of Measles, *J.A.M.A.*, 82:1180, April 12, 1924.
- (6) Rietschel, V.; Prophylaxis of Measles, *Ztschr. f. Kinderheilkunde*, 29:127, June 3, 1921.
- (7) Cros-Decam, J.; Prevention of Measles by the Blood or Serum of Adults Who Have Had Measles, *Thèse de Paris*, vol. 19, 1926.

DISCUSSION

Dr. F. C. Johnson (New Brunswick): There is certainly no doubt that there are cases in which it is highly desirable to prevent measles altogether or to prevent severe measles; one would like always to prevent severe measles. The day in which the mother puts all the children in the house into bed with the first one that gets measles, so as to

give it to them all and have it over with, is gone. Certainly in hospital wards the inconvenience and danger of measles epidemics is most important.

When the agent for active immunization is perfected it will be most desirable provided it does not cause more disturbance or toxemia than does a mild case of measles or modified measles itself. There has been some hope of preparing and using freely immune goat serum, but it has not been of as high potency as immune serum from man. I believe the use of whole blood from persons who have had measles will always have a place in the prophylaxis of the disease.

My own experience has been most satisfactory in the few cases I have injected. There was either complete protection or a modified disease of very mild sort which was very gratifying. It is very nice to think we can choose with precision the moment for injection of the protecting agent, and by knowing the proper moment to use get a definite result almost to the number of spots in the eruption or fraction of a degree in temperature. As a matter of fact, the great unknowns of the dose of contagion and the virulence of the infecting organism and resistance of the child, not to mention the titre of potency of the serum used, make the results quite variable and one should be somewhat guarded in his promises of results.

There is something to be said for an effort to protect a child completely against measles or any other disease. One never knows certainly the outcome of any infection, modified or not. Secondly, other children may be infected from the child who is allowed to have a "modified" measles and the second child may be very sick or be a focus of a considerable epidemic.

Some authors feel that immune serum is of value in modifying the course up to the time of the appearance of rash, that is for a time considerably over 4-5, or even 6-8 days after exposure.

Woody, Medical Director of the Philadelphia Hospital for Contagious Diseases, states that: "In 1925 an outbreak of measles of unparalleled proportion occurred in the wards. To combat the situation with convalescent serum was out of the question, so we turned to adult whole blood, one or two ounces taken from a parent and injected into the thigh muscles of the patient. By the use of convalescent serum and parental whole blood measles, as a crowd infection, has been robbed of its terror."

One should remember that whole blood from a recently convalescent patient, that is 7-9 days after the disappearance of fever, is of course better—about twice as potent as Dr. Lathrop showed—than whole blood of an adult who had measles years or even a month or so past, the advantage of using this blood being obviously that only $\frac{1}{2}$ as much is needed as of adult whole blood of unknown titre.

If one should need to transport blood for any distance, as might be the case when the donor for any reason could not be brought practically in contact with the recipient, one may citrate the blood. Kolmer and Showder suggest simple methods of drawing citrate solution into a syringe and then drawing in the blood and it has been shown that the potency of the serum is not lost by so treating it. It is also emphasized that forcing whole blood too rapidly into muscle or subcutaneous tissue should be avoided. One can really work very deliberately with whole unaltered blood in syringes so as to not traumatize tissues in making the injection of large amounts of blood.

Dr. Frederic W. Lathrop (Plainfield): The idea of using citrated blood, spoken of by Dr. Johnson is perfectly feasible and very worth while if there is any trouble about getting blood from the mother or if you have to transport the blood any distance at all.

THE THYMUS GLAND*

ELMER G. WHERRY, M.D.,
Newark, N. J.

The thymus gland is one of the organs formerly known as ductless glands, and resembles them very closely in structure. It is a temporary organ, attaining its full growth at the end of the second year and starting at that time to disappear, until at puberty there is no more than a faint trace of it left. It consists of 2 lateral lobes placed in close contact along the middle line, situated partly in the neck, partly in the superior mediastinum, extending from the lower border of the thyroid gland downward to the fourth costal cartilage. In the neck, it rests on the front and sides of the trachea, behind the sternohyoid and sternothyroid muscles; below, it lies on the pericardium, separated from the arch of the aorta and the great vessel by a layer of fascia. The entire gland is about 2 in. long and $1\frac{1}{2}$ in. wide and weighs at birth about $\frac{1}{2}$ oz.

The arteries supplying the thymus are derived from the superior and inferior thyroid and the internal mammary; the veins terminate in the left innominate and thyroid veins. The lymphatics are of large size, arise in the substance of the gland and are said to terminate in the internal jugular vein.

The nerves, which are very small, are branches of the pneumogastric and sympathetic.

The thymus is thus, essentially, a lymphatic structure and may rightly be regarded as part of the lymphatic system.

From it may be extracted a nucleo-albumin which, like the corresponding bodies from lymphatic glands or from leukocytes, seems to have some special relation to the formation of fibrin; it is also rich in extractives con-

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ning xanthin, hypoxanthin, leucin, succinic and other acids. A solution of the proteid from the thymus injected into the veins will cause extensive intravascular clotting. Since the thymus is largely developed before birth, disappearing soon after and being eventually replaced by fat and connective tissue, it is obvious that its chief functions are in some way associated with events taking place before birth or in very early life, but of what really takes place we have no exact knowledge. That little is known of the anatomy and physiology of the thymus is rather curious as it has been established that it was described and pictured in the sixteenth century and, according to Dr. Reuben and Dr. Harold R. Fox as noted in a statement issued from the department of Diseases of Children, College of Physicians and Surgeons, Columbia University, it was suspected of being the cause of sudden death by Morgagni in the middle of the eighteenth century, and Lee, in 1842, showed the relationship of the thymus not only to sudden death but to laryngeal spasm and asthma.

However, it was not until 1869, according to the same authorities, that Paltauf depicted status lymphaticus by showing the association of enlargement of the thymus and general lymphatic hypertrophy. In 1899 Holt reported cases of asphyxia and sudden death due to enlargement of the thymus. At the same time he found in the literature records of 15 other cases with identical symptoms. He said that the asphyxia is apparently due to pressure upon the pneumogastric nerve.

In recent years we have become more familiar with the association of an enlarged thymus gland with convulsions, laryngospasm, stridor and the syndrome of status lymphaticus.

There are, in addition, other conditions in childhood in which pathologic enlargement of the thymus has been noted: Grave's disease, Addison's disease, acromegaly, and very frequently rickets; there have been reports of cases where thymic enlargement was associated with acute leukemia.

The most characteristic symptoms of enlarged thymus are sudden death, if death can be called a symptom, convulsion, sudden attack

of dyspnea and cyanosis, spasm of the glottis with stridor, spells of holding the breath, asthma and, according to some authorities, retraction of the head. In very young children a large accumulation of mucus in the throat may be the most prominent symptom.

The diagnosis is usually made by radiograms, although it may occasionally be made by percussion and palpation in the suprasternal notch.

The cause of the symptoms is conjectural, being ascribed by some to mechanical effects such as pressure upon the trachea; especially in the laryngosternal space, the so-called critical space of Grawitz. Yet there have been many cases of sudden death associated with enlarged thymus, sometimes with status lymphaticus also, where the hyperplasia could not have interfered mechanically with the trachea. Other reasons assigned are nerve reflex (laryngotracheal reflex), rupture of vessels, endocrine disturbance, anaphylactic reactions, etc. Although it has not been definitely proved that the thymus has an internal secretion, it has the structure of a secreting gland and it is easy to conjecture that it is quite possible for it to hypersecrete and produce symptoms as readily as the thyroid, for example.

The treatment of thymic enlargement is x-ray therapy; which is always satisfactory, often surprisingly so, and frequently permanent improvement takes place after 2-3 treatments and it is seldom necessary to give more than 6-7 treatments. In from 10-20% of cases, after a satisfactory reduction in size there is at the end of a short period a regeneration of the gland with an increase in size; these cases must submit to further treatment. Great care must be taken not to ray the patient over too long a period as the gland may become recalcitrant to the rays and surrounding tissue may suffer.

Case 1. The first case that came under my own observation was over 20 years ago. This was a male child, well developed, full term baby, and as I confined the mother I was familiar with the case from start to finish. The child was breast fed and apparently normal in every way, yet I was being constantly sent for, often at night, each time to

be told by the frantic parents that the child had awakened them by a strange whistling breathing and they had found it cyanotic, plainly gasping for breath; and each time I found the same thing—a perfectly normal baby, with good color, normal heart action, respiration and temperature. Had I had the mother alone to deal with, I should have considered her statements of the child's condition as very much exaggerated and, as it was, I assured the parents that their nervousness was being communicated to the baby. My arguments, however, fell flat when the baby obligingly had an attack one day when I was present. He was lying upon the bed, sleeping quietly, when with no warning he had a sudden attack of dyspnea with stridor and, apparently, spasm of the glottis; he was lying flat on his back with his head extended. In addition he was extremely cyanotic. Before I could do anything, the mother had picked him up and thrown him over her shoulder and run into another room, shouting at the top of her voice. I followed, took the child away from her, and to my surprise found that instead of being rigid and in a convulsion he was limp, covered with sweat and his respiration and general appearance fast returning to normal.

I made a diagnosis of enlarged thymus from the symptoms and thought that I was able to make out dullness in the suprasternal notch.

The next day I had Dr. Coit in consultation, who agreed in the diagnosis but suggested that we get Dr. Corwin's opinion. This was done and he confirmed our diagnosis. As at that time we knew nothing at all about x-ray treatments, we thought prophylaxis was the only thing that offered any hope and instructed the mother never to let the baby lie on his back, even for a minute. Sand bags were employed to keep the baby on his side and everything went well until one day the mother was dressing the baby on her lap and was interrupted to give an order to her grocer. She turned her head over her shoulder for a minute or two and when she looked again at her baby he was dead. He had been lying on his back with his head beyond his mother's knee, so that his neck was fully ex-

tended. In this case the sudden death might rightly be described to mechanical pressure upon the trachea.

Case 2. When I first saw this baby, Jane L., she was getting over an attack of sore throat. Although cultures of the throat and nose were negative she had been given antitoxin. I was called in to treat the subsequent urticaria. Several months later I was called in to see her again, after another attack of sore throat; this time no antitoxin had been given but the attending physician felt that possibly he was negligent in not giving it and had some with him to administer if I approved. As several cultures were negative and the case looked more like one of follicular tonsilitis, and inasmuch as the child had been ill for 3 days and was still living, even somewhat improved, I felt it unlikely to be laryngeal diphtheria and upon finding out from her parents that she had frequently held her breath until she was cyanotic, and presented signs of rickets and status lymphaticus, I made a diagnosis of enlarged thymus. This was confirmed the following day by radiography. She responded promptly to x-ray treatment and her general physical and mental condition improved remarkably. At the end of 2 years, and after x-ray picture by Dr. Baker showed a normal shadow, her tonsils and adenoids were removed and she recovered without the slightest trouble. In this connection, I might say that the anesthesiologist was very careful not to permit extension of the neck at any time during the operation and although this made the operation somewhat awkward it was done successfully and the child has changed from a puny, anemic child to one full of vigor and health.

Case 3. This patient, John R., I had for some time under my care simply as a feeding case. The parents were of the usual ignorant European type; the baby had enlarged tonsils and adenoids; the nose being always more or less stopped up and there being frequent difficulty in swallowing. As these cases are common, I took little interest in it until one night the parents came to my office in great excitement, saying that the baby was dying. The child was cyanotic, with the anxious look and staring eyes and difficult respiration o

ees in laryngeal diphtheria, and when in addition marked retraction of the sternum was found I had no hesitation in making a positive diagnosis of diphtheria and gave anti-toxin then and there. Negative cultures failed to shake my faith in the diagnosis and the house was placarded and the child isolated for over a week, at the end of which time 2 more negative cultures were taken and the child permitted to mingle once more with the family. I felt highly satisfied with myself and the outcome of the case until 1 month later when the child had a similar attack and 1 month after that a third. He was then referred to Dr. Baker for a picture of his thymus gland. This was found to be enlarged and he has had several x-ray treatments with the result that he has shown much improvement.

A second picture taken 2 months later showed but slight change in the shadow. Four more treatments were given with the result that all symptoms have disappeared, the child sleeps better, has better color, is better natured and better behaved and has gained much in weight and strength.

Case 4. This baby, Helen S., represents a rather common type, being afflicted with a pronounced and stubborn general eczema associated with recurrent attacks of asthma. X-ray examination showed an enlarged thymus. Marked and apparently permanent improvement in both the eczema and asthma followed 7 treatments, with no return of symptoms after 2 years.

Case 5. Frank H., 4 year old colored boy, admitted to Children's Pavilion with diagnosis of pneumonia. He had been in a stupor for 2 days prior to admission. Temperature was normal but respiration was over 60 and pulse so rapid that it could not be counted. X-rays showed a tremendous thymus. Immediate improvement took place after the first treatment. He is still receiving treatment.

Case 6. George S., 2 months old boy, well developed and vigorous at birth, maintained his vigor and health until he was 7 weeks old. He then began to be troubled with large quantities of mucus in his throat and some

nasal discharge; at no time did he have an abnormal temperature. He gave up nursing and began to fail rapidly; was unable to cry out loud, respirations were shallow and rapid; physical signs of asthma; mild signs of stridor and breath holding; marked prostration.

A diagnosis of enlarged thymus was confirmed by radiography; tremendous enlargement, the supracardiac shadows measuring 82% of the inner diameter of the chest at the level of the sternocostal articulation of the first rib. The shadow also obscured the upper margins of the heart, aorta and apices of the lungs. This baby showed marked improvement after the first treatment, which was manifested by his taking 21 oz. feeding from a Breck feeder within 18 hours. He continued to improve until at the end of 2 weeks appetite, cry, color and general condition became nearly normal, and he is still under treatment and is still improving.

Other cases might be reported but as those already cited show that the enlarged thymus may produce both pressure symptoms and what appear to be toxic symptoms it is unnecessary to take up more time. Undoubtedly a great number of cases exist which give no symptoms, unless sudden death may be considered a symptom, as has been demonstrated by a number of autopsies. It is also probably true that most of the symptoms enumerated may occur singly or in a group, without a demonstrable hypertrophy of the thymus gland. Enough is now known about the condition to warrant x-ray examination in all cases showing any of these symptoms and x-ray treatment should be given in all suspicious cases even though the picture is not positive. All children who have had a convulsion should have at least one picture taken; this is also true of children who frequently hold their breath. It would add to the safety of all children submitting to operation, especially for tonsils and adenoids, to be radiographed first. X-ray therapy is harmless when properly done and as it is the only curative measure we have for this condition, and as it is always satisfactory, and as delay is frequently disastrous we should learn to diagnose these cases promptly and start treatment at once.

DISCUSSION

Dr. Roger H. Dennett (New York): We have many interesting cases of the kind described by Dr. Wherry. I recall one case where the child's voice was entirely absent. It would go through all of the signs of crying but could make no sound. The patient was sent to a laryngologist who sent a report that it was an enlarged thymus. X-ray treatment brought the voice back. That was the first time I knew that absence of voice was a symptom of this condition. Chronic cough is another symptom. I have had patients whom I thought had whooping cough and who were cured of the enlarged thymus by x-ray treatment. Until these children have x-ray treatment they will not gain in weight.

Dr. H. A. Schachter (Newark): A few months ago I saw a child that had been treated at the Newark City Hospital and later at the Babies' Hospital of which Dr. Wherry is a Director. The interesting thing is that I first saw the mother of this child in my neurologic clinic at Newark and treated her for a mental disorder. She later made a fair social adjustment, then married and, despite my advice, this baby (who is the subject of my story) was born. The father was also a psychopath. When the child became a few months old the mother complained that the child cried incessantly, with a peculiar note to its cry, would often appear to lack air and would at times stop crying and become blue and limp. When I saw the child it had one of its typical seizures so characteristic of those described by Dr. Wherry, except that all of the child's voluntary musculature seemed to be hypertonic and there was almost a tetany.

Later the child was admitted to the Newark City Hospital for diagnosis and x-ray treatment; showed no improvement there but did improve after admission, at a later date, to the Babies' Hospital. It is now well nourished, looks well, and for some months has behaved itself sufficiently to allow both parents to sleep.

About a week ago the father complained that he had been kept awake at night by the baby's crying and was a nervous wreck as a result. Perhaps the child requires some further treatment.

I think it a significant fact that these persistent thymus gland cases are so often associated with Grave's disease, and pituitary and other glandular dysfunctions, and it is reasonable to venture the prophecy that eventually an internal secretion will be demonstrated that is produced by the active thymus gland in utero if not after birth.

Dr. H. B. Silver (Newark): It has been a pleasure to hear Dr. Wherry's paper. I would like to speak of another case. Very often sudden death with the diagnosis of thymus gland enlargement as the cause, may be an incomplete diagnosis and very misleading. About 3 years ago we had a baby with an enlarged thymus gland, with a definite history. We gave x-ray therapy and the shadow came down nicely and the respiratory symptoms disappeared. About 2 weeks after the last x-ray treatment the child developed a condition of obstruction, apparently, a paralysis of the larynx of some type. Its mouth was full of bubbling mucus and it could not cough it out. We thought at the time that there was possibly some involvement of the recurrent laryngeal nerve due to the thymus. The child was sent to the Contagious Hospital, thinking intubation might be necessary. Radiographs were taken, the shadow was completely reduced and the child died rather suddenly, apparently in a sudden asphyxiation. Nothing was found at the autopsy except the thymus which

showed scarring and replacing by fibrous tissue. The diagnosis was that the child had died from the thymus enlargement or status lymphaticus.

That case occurred at the very beginning of the epidemic of poliomyelitis. Within 3 or 4 months following that we saw a considerable number of cases. I think the child died of poliomyelitis. In so many of these cases where the child has died of enlarged thymus, I think if a more complete autopsy were done it would be found that something else is responsible for the sudden deaths, and the probability is that true thymic deaths are comparatively rare.

Dr. Devlin (Newark): The first time I became acquainted with an abnormality of the thymus gland was about 30 years ago. I was just out of college and felt that I knew everything about medicine. I was doing a tonsillectomy in a child about 1 year old. At that time we put the patient in the Rose position, and immediately on getting this child up it died. An old practitioner, a friend of mine named Collins, told me that was a thymus death.

I was delighted to have Dr. Wherry tell us something about the thymus gland because I have been trying to learn something about it ever since my first experience just related and I have never been able to find anything that would give me a good idea of the formation of the thymus. I see a great many so-called enlarged thymus glands and treat a great many. In measuring the thymus across the thoracic cavity at the sternal notch it measures about 8 cm. If the thymus shadow is 4 or $4\frac{1}{4}$ we say that is a persistent thymus and proceed to treat it. I think the idea has gone forth among a great many men who send these cases to the hospital that when the x-ray plate does not show any diminution of the shadow that there has been no x-ray treatment. We have seen so many where the diminution of the shadow is so meagre in cases that we have pronounced cured that we have come to the conclusion the size of the shadow after x-ray treatment has nothing to do with the persistence of symptoms. Men throughout the country who have been doing x-ray therapy have this same idea, that there is very little diminution of the shadow of the thymus. Taken at a specified distance we can enlarge the thymus, or can make it smaller by a certain distance. We take them all at a distance of 28 inches skin focus.

SENSIBLE STANDARDS FOR PROPER OBSTETRIC CARE*

GEO. W. KOSMAK, M.D., F.A.C.S.,
New York City

The improved care of maternity patients has furnished in recent years a topic for animated discussion in numerous medical and lay periodicals. Reams of paper have been used by the latter in calling to the attention of the public the undesirable character of

* (Presented at the opening meeting of a campaign for better obstetric care, under the auspices of the Medical Commission for Maternal Welfare of the Essex County Medical Society, November 14, 1929, at Newark, N. J.)

medical practice in this field. Governmental agencies, federal, state and municipal, have given the subject much thought and study and have taken it upon themselves to recommend changes. Not satisfied with this they have even participated in the actual work of caring for obstetric patients. To one who has studied the situation and is more or less familiar with conditions by actual contact, this agitation is regarded with mingled feelings. Admitting a fairly high mortality rate for childbirth in the United States, is it to be assumed that such an unfortunate condition of affairs is due merely to neglect, or to poor obstetric practice, or are there other factors of wider import to which a part at least of the blame may be ascribed? I am frank to confess that I have no satisfactory answer at hand. At the same time, I firmly believe that as a profession we should make every reasonable effort to correct the situation. This can only be accomplished by developing a standard of obstetric practice to which every physician must subscribe, so that in the final analysis the medical profession can state with perfect freedom and candor that it aimed to give the best.

Preliminary to what I may say later on, permit me in discussing obstetric standards to state that I am not an adherent of the "deadly routine", that I have no desire to stifle initiative or to do away with that most desirable individualistic conception of medical practice. Nor have I any desire to scold and to chide, to draw invidious comparisons between the obstetric results in this and foreign countries, or between private practitioners, hospitals and midwives. My aim is merely to draw attention to certain accepted and easily applied standards and methods in the practice of obstetrics which I trust will serve rather as a happy medium between the two quoted extremes. There should, of course, be only one standard in the care of a pregnant woman, and that of the highest. However, this laudable aim has tended to produce exaggeration in certain directions which will be referred to again later on.

In order to present in proper fashion what may be designated as sensible or mean standards of obstetric care, an outline of such a

procedure will be attempted. I shall do this without reference to whether a patient is to be delivered at home or in a hospital, but with particular thought in mind that we are dealing with a woman presumably pregnant, who engages a physician to bring her safely through confinement. Let us take such a case and follow it along. About the ordinarily accepted facts of the parturient state I will say little, knowing that you are as familiar with these as I am. I merely want to refer to them in their proper place but I do want to speak of those particular aberrations of normal pregnancy and labor which are likely to be overlooked.

In the first place, the patient usually comes to her chosen physician with the diagnosis already made. However, this self-made diagnosis should always be confirmed by accepted signs and symptoms, postponing final opinion until a later visit. A careful physical examination is ordinarily indicated at the time of the first visit. There are many facts which can be elicited at this time, but if the patient is a primipara and possibly timid, the examination can be deferred until the next visit. Since it has become customary for women to consult physicians as soon as they have skipped at least 2 periods, the early recognition of many otherwise unrecognized abnormalities is usually possible. A careful history of the patient and her antecedents should be taken at this time. The occurrence of cancer, tuberculosis, heart and kidney disease in her family should be known, likewise the patient's previous personal history should be gone into very carefully, with particular attention to occurrence of the exanthemata and mumps, for these may have a direct bearing on her present state. Physical examination of the heart and lungs is important. The mere occurrence of a heart murmur means little, but associated with an irregular heart action or other symptoms demands attention. The presence of a persistent cough always calls for careful examination of the throat and lungs. The breasts should be inspected at the time of the patient's first visit for much can be done to develop small or depressed nipples and a satisfactorily developed breast often gives us an indication of the patient's

general make-up. The presence of operative scars on the abdomen should always be inquired into and if the patient's knowledge of her previous operations is unsatisfactory, the inquiry should be directed to her surgeon.

Although a vaginal examination in the early months is not acceptable to many patients, I regard this as a valuable and informative procedure, especially if inquiry reveals that the woman has a discharge. Such examinations often disclose some very interesting conditions. In the first place malpositions of the uterus, or malformations of this organ, can be detected and the replacement of a retroverted uterus may be possible and its complications averted. Adnexal enlargements or inflammations can likewise be determined. During recent years I have supplemented the vaginal examination by introducing speculum and noting the condition of the cervix. It is a surprising fact that in many cases, even in young women, extensive cervical disease is present, as manifested by discharge, erosions and granulations. If this condition is noted, the knowledge is of value because irregular bleeding is apt to occur in these cases, particularly if exuberant granulations are present. The bleeding is sometimes started up by intercourse, after muscular exertion, etc., and a diagnosis of a threatened abortion is frequently made. Fortified with this knowledge that the patient has an endocervicitis with exuberant granulations around the external os, the thought of an impending abortion, with possibly radical treatment may be put aside. I am quite convinced that many women are curetted for an incomplete or threatened abortion in whom the bleeding took place merely from such lesions in the cervix. On the other hand, exacerbations of an endocervicitis such as are met with in the early months of pregnancy, may lead to abortion by an extensive inflammatory process.

The treatment of these cases is as yet uncertain. I have had some success with local antiseptic applications and in a few instances I have employed the electrocautery with good results. However, reasonable efforts to clean up these cases may be made if facilities are at hand. Monthly visits to the doctor's office

with the usual urine examinations and notation of the patient's obstetric progress are essential and the patient should always be impressed with the necessity of these regular visits. A little more knowledge can usually be gained with each successive call and I have always felt that it makes a good impression on the patient to have her go through a routine examination each time, noting the condition of the tongue, color of the skin and mucous membranes, enlargements of the thyroid gland, condition of the breasts and the progressive enlargement of the abdomen. Blood pressure observations are now quite generally included in the antepartum examination. I sometimes feel that too much reliance is placed on them. Undoubtedly they constitute a valuable index of a patient's condition, but caution should be exercised in the interpretation of readings. The usual custom of taking the blood pressure with the patient in a sitting position is, in my belief, entirely wrong. A patient should be prone for at least 5-10 minutes and put at ease before the reading is made. A difference of from 10 to 20 points may be found if these precautions are not observed. We have been inclined to over-emphasize high blood pressure and neglect patients in whom the blood pressure is low. Every woman is a law unto herself as regards blood pressure, and although the normal is stated to vary from 130 to 135 systolic, there are many women perfectly well and absolutely normal as far as their pregnancy is concerned, who have blood pressure up to 150 or 160, and in whom no toxemia is present. High blood pressure readings should always be correlated with the urinary and other findings. In many instances a patient can be made very miserable by being constantly warned of high pressure and then kept on a starvation diet to lower it. Low pressures I believe to be of equal importance because a systolic reading of 100 or less often speaks for a debilitated patient, and in the later months may point to a toxemia. Such patients should be kept under just as careful observation as those presenting excessively high readings. Rest in bed is the signal remedy for either high or low pressures. The low pressure cases usually need to be properly dieted.

As a rule they require extra fats and even proteids, with suitable tonics, such as the recently introduced viosterol. Sudden elevations of blood pressure are, of course, more to be considered an evidence of disturbed metabolism and toxemia than those which are running more or less on an even keel, even if high. A blood pressure running up to 180 or 190 within a period of a week is apt to spell disaster unless immediate measures are taken to correct the underlying causes. Rest in bed, proper diet, the administration of sedatives, are all indicated in these cases, but not necessarily such radical treatment as blood-letting, induction of labor, etc.

Coming back to the general care of the pregnant patient, the principal abnormality of the earlier months which we are called upon to treat is nausea and vomiting. The handling of this condition has been so widely discussed in recent years that reference need merely be made to the good results from a carbohydrate diet, sedatives, and hospitalization in the severer cases. The induction of abortion for vomiting is becoming rarer and rarer, and we owe much to Titus' excellent work on the treatment of hyperemesis with instillations of sugar solution. A word of caution is needed. The intravenous administration of glucose should only be done under the most careful auspices, and among the precautions to be observed are the use of a thoroughly sterilized solution and its administration at a very slow rate; 100 gm. glucose may be given to the average patient without fear, but the dilution depends on how much hydremia is present. A woman in whom constant vomiting has depleted the tissues of water, can safely be given the aforesaid quantity of glucose in 1000 c.c. water as a 10% solution. This may be lowered to a 5% solution in very much dried out patients, and is to be repeated at intervals of from 1 to 3 days as occasion requires. Insulin has been suggested as an adjuvant when giving glucose. I see no reason for this, as we want the glucose to be used up in a natural physiologic manner. If too much is given it merely spills over through the kidneys without harm to the patient.

Rectal feeding of various nutrient sub-

stances in hyperemesis has never given me any satisfactory results and I have abandoned this measure completely except as a means of getting water into the patient, when this cannot be swallowed or where the intravenous injection of glucose is not feasible.

During the earlier months of pregnancy means should be taken to build up the patient as much as possible for her impending labor. Regular weighing is a good guide. Fortunately the middle months, from the fourth to the seventh or eighth, are apt to be free from annoying complications, which gives the woman time to get over the disturbances of the earlier months and places her in a more satisfactory frame of mind for what is to come later on. During this time the pelvic measurements may be taken at one of the visits to the doctor's office. I sometimes feel that too much attention is given to pelvic measurements for, as we all know, the baby's head is the best pelvimeter. But we should be prepared for trouble, and while no absolute information can be obtained, in many cases, yet the comparative relations of the diameters to each other and the knowledge of where the sacral promontory is, may be of a great deal of help in case protracted labor ensues.

A physician should also give a certain amount of instruction to his pregnant patients, as to what they should observe and report to him, no matter when the events occur. For this purpose a patient may be supplied with a little pamphlet of directions. There are many of these to be had but, where a physician feels that he can afford to do it, his own literary effort in this direction should be encouraged in preparation of such a booklet. For many years I have given my patients such booklets and directed them, and likewise their husbands, to read them. It has saved many foolish questions and has added to the patient's knowledge about herself.

Attention may now be directed to the final stage of pregnancy—the patient's labor. In the first place may I state that prenatal care, no matter how conscientiously or completely carried out, is no absolute guarantee against complications or accidents in labor, nor should it make a physician less cautious at this time. Improper labor care will invalidate all the

previous good attentions which the patient may have received, and it is here that the cause for our high morbidity and mortality rates must largely be sought. Be it remembered that labor is a natural process; be it likewise remembered that a deviation from normal to abnormal is rather common. Close observation is therefore necessary to detect any abnormalities, to be on guard to correct them when possible, and to guide labor to a natural termination rather than to lead it into new paths. By that I mean primarily that interference is not to be practiced unless necessary and that the indications for such be clearly established. Routine version, routine induction of labor, routine forceps, routine episiotomy are not for universal application. A vertex presentation under any circumstance is preferable to a breech delivery; reliance on the natural forces of labor to bring the presenting part of the child to the outlet, is the physiologic course to be followed whenever possible. Where this course does not proceed to the benefit of either mother or child, assistance may be indicated, but an accurate estimate of the condition of mother and baby should always precede operative intervention. Unfortunately, at the present time we find among so many of our patients the under-nourished, poorly developed unstable type of woman. We should of course make an effort to eliminate the undue strain necessitated by labor with proper prenatal attention. This is not always possible. We are often confronted with a case in which labor proceeds to a certain point and then the mother's power failing her, we are faced with the necessity for delivering a live baby by artificial means. Correct estimation of this time is paramount and in the average case, with the head in sight, and indications for delivery present, the proper application of forceps by one who is skilled, may add much to alleviate the pangs of these final hours. But it were better where this skill is not at hand, or the environment of the patient is such that operation is fraught with danger, that nature be given another chance. True, it is a gamble, but a large dose of bromide with perhaps a small amount of codein, is preferable at this

time to indiscriminate injection of pituitary substance or injudicious use of forceps.

Version as a routine is only mentioned to be condemned. Cases demanding version are few and far between, and except under the most favorable surroundings the procedure is fraught with danger to the mother, and especially to the child.

The question of cesarean section may well be considered at this point. The laity has been impressed with the ease of cesarean delivery, and so have a large number of physicians. The surgical trend in obstetrics is an unfortunate one. True, the skilled men can deliver by cesarean without difficulty but the aftermath is the thing to be considered. The incidence of cesarean section in various parts of the United States is probably larger than that of other countries but unfortunately many of these operations are done by the general surgeon, whose obstetric viewpoint is necessarily limited. The resort to abdominal delivery is by no means as simple as would appear on the surface. A woman who has once had a cesarean section and survives it successfully is by no means out of danger in a subsequent pregnancy, and the incidence of postoperative complications leading to possible fatalities is very high.

Coming back again to simplest things, it is almost trite to remark that securing and maintaining an aseptic technic during delivery is a very important matter. Our knowledge of the bacteriology of the parturient passages is far from complete, in so far as certain interrelated conditions are concerned. We have no gauge of the patient's personal resistance to infection. We are still very uncertain about the autogenous factor in production of puerperal infection, but there is no doubt that extraneous sources of infection probably play the more important rôle. Careful history taking and prenatal observations will usually give us some clue to the presence of a septic focus elsewhere in the body; and here I refer particularly to the teeth, the throat, and a chronic salpingitis or endocervicitis. Although it may not be possible to eradicate such foci, a knowledge of their presence may explain sepsis in cases where an aseptic obstetric technic has been observed. Maintenance of the

latter is more or less within our power; elimination of septic foci is often a matter of chance. The removal of infected teeth during pregnancy is essential. Exacerbation of a chronic tubal or parametric inflammation may perhaps be avoided by not massaging the uterus after delivery, or if hemorrhage calls for compression of the fundus, doing this in the manner advocated by Polak. Possible infections from a chronic endocervicitis are difficult to eliminate and although, as I have already stated, treatment of this condition during the prenatal period is possible, the results are uncertain. Avoidance of cervical lacerations by manipulation or otherwise is the only thing to be considered. The use of antepartum douches as a means for disinfecting the vaginal tube were given up many years ago, but the recommendation by Mayes and others to instil a solution of mercurochrome before labor has again brought this subject before the profession. Mayes claims excellent results from this procedure and presents a series of case reports to confirm his views. Gordon and others show equally good results in a large series of cases where such instillations have not been employed. How much the bacteria of the vagina and cervix are affected by antiseptic instillations is still a matter for debate. The procedure is more or less disagreeable and as its necessity is questionable, we may perhaps omit it in the conduct of ordinary cases of labor, concentrating attention on other factors in the possible introduction of septic organisms. The general practitioner in particular, coming in contact with many varieties of infection, must exercise especial care in the conduct of labor. Thorough disinfection of the patient's external genitals with soap and water and mild antiseptic solutions, together with effective hand scrubbing, use of rubber gloves, cutting down the number of vaginal examinations, and avoiding undue interference with natural processes of labor, are still the sheet anchors upon which to base our technic. Standard methods of doing these things are so well known that they do not require repetition. While vaginal examinations should be cut down to a minimum, it is an error to suppose that definite information about the cervix and the presenting part

should not be constantly in the mind of the obstetric attendant.

This brings up the question of rectal examinations. Undoubtedly rectal touch will elicit much information, but notwithstanding the favorable comments with which the literature teems, the use of this procedure is attendant with uncertainty and the information secured less definite than that which comes from a careful and satisfactory vaginal examination. In the later stages of labor descent of the fetal head can be satisfactorily gauged by rectal examinations, but in partial dilatation of the cervix I would rather depend on a vaginal examination for satisfactory information about the status of things.

The question of routine episiotomy enters largely into the statistics of delivery. Either median or lateral, as the case may indicate, is a procedure without danger and of great value, but I believe it should be restricted to hospital deliveries and done by men expert in its execution. Careful delivery of the head, even where forceps are employed, will result, if at all, in a more or less natural tear which does not necessarily involve the outer skin. Repair of such lesions is usually simpler than where an episiotomy has been carried out.

Conduct of the third stage of labor is a matter for careful consideration. Routine injection of pituitary extracts after birth of the baby, routine expression of the placenta by one means or another at the end of a given time, subsequent massage of the fundus, vaginal exploration to determine progress of placental separation, have all had their day. It seems to me that it were better to consider each case a law unto itself, and one should be governed in the conduct of this stage by existing circumstances rather than by rule. Constant kneading of the fundus after labor is unnecessary and as a rule the baby can be cared for and the necessary repairs made before it is time for the placenta to be expelled. I believe that a great deal of damage is done to the uterus and likewise the stirring up of possible septic processes by forcible manipulations of this organ. Should bleeding be noted after birth of the baby, and the uterus does not contract firmly with moderate manipulation, an ampoule of pituitary substance

may be indicated, but to give this as a routine before placental delivery impresses me as unnecessary. As for placing a time limit on placental delivery, this is usually gauged by the attendant's state of mind rather than the patient's condition. At the end of a half hour, in the majority of cases, the placenta will be found in the grasp of the cervix with the uterus firmly contracted above it, and during a contraction the organ may be readily expressed.

There are many more things in the conduct of the postpartum period that might be discussed but I fear the hour is growing late and the subject of too much importance to be dismissed with a casual mention. I merely want to call attention to a few additional points. The first of these concerns care of the bladder and bowels. Ordinarily a patient experiences little difficulty in voiding, but in cases of prolonged labor, particularly where the head has exerted compression against the trigone, partial paralysis may result. If proper catheterization can be carried out it seems to me that emptying the bladder by this means in from 12 to 16 hours after delivery is indicated. As a rule, subsequent catheterizations are unnecessary, but if overdistention of this organ results from failure to empty naturally in 20 or 24 hours, the resulting paralysis may last for several days. I believe there is less danger in catheterization carefully carried out than from leaving residual urine in the bladder with constant possible production of a trigonitis or cystitis.

I have said nothing thus far about anesthesia, narcosis, or analgesia, in labor. Civilization calls for increased skill on our part to alleviate the pangs of child birth. No one can disagree with this worthy purpose, but to administer routinely a complete analgesia to every woman in labor, is, in my belief, an error. Yes, there are cases which may require the rectal instillation of ether by the accepted procedure, but if universally employed throughout the country without careful and experienced supervision, a toll of asphyxiated babies and other complications will follow. Satisfactory narcosis can be attained in most cases by the judicious use of morphin and

atropin in the earlier stages of labor, before cervical dilatation is completed, supplemented during delivery by an inhalation anesthetic. Spinal, sacral and similar analgesia procedures, would be out of place in this discussion.

The patient's getting up depends naturally on the individual circumstances, but as a general rule a normal patient may be up on the ninth or tenth day and ready for leaving the hospital on the fourteenth. An important accessory to proper involution is bed exercises. Patients may be directed to roll over in bed and use their arms and legs as freely as they desire. In fact it is well to stimulate leg exercises by having the patient lie over on her back, raising each leg at right angles to the body at least 12 to 20 times each day. This will restore the relaxed abdominal muscles, aid the patient in expelling gas, and avoid the stiffness which so many women complain of on getting up. Elevating the head of the bed to secure proper lochial drainage is almost always indicated.

The question of bowel movements is an important one. I have abandoned the use of cathartics except where specially indicated, and rely on a soap-suds enema, to be given every other day, beginning on the second day after the baby's birth. The advantages of this procedure are obvious.

It is important to bear in mind that involution in the parturient takes about 3 months and it is advisable to have the patient come to the office for pelvic examination at the end of the fourth, eighth and twelfth weeks. Uterine malpositions are not always detected when the patient leaves the hospital and annoying retroversions of the uterus with their sequences may be overlooked if a patient is not examined at the intervals stated. I have found more cases of retroversion at the eighth week than at the fourth. A well fitting pessary can usually be adjusted at this time and will give the patient a great deal of comfort besides contributing to more rapid involution of the uterus. Examination of the cervix with the speculum at this time also discloses unhealed lacerations, erosions, etc., which can be effectively treated, and in this way chronic parametritis avoided.

OBSTETRIC MEMORIES

THOMAS W. HARVEY, M.D.,
Orange, N. J.

In conclusion, I want to reiterate the statement that conservative obstetric standards must prevail if we are to improve our present mortality and morbidity statistics relating to childbirth. Resort to hospital deliveries has not bettered the situation and we find practically as many cases of sepsis, and likewise some other complications of pregnancy, today as we did when women were largely confined at home. It has been proposed that obstetric cases be hospitalized in the effort to improve the situation. I feel that I cannot agree with this contention and that it were better if hospital facilities could be limited to primiparas, to women in whom complications are looked for, or to those among whom the home environment is not suitable. Most multiparas can be safely cared for at home, although in our larger cities there are household and economic factors which may weigh against this. Nevertheless, in smaller communities confinements at home are not to be regarded as impossible and a campaign should be developed for this purpose. We do know that as a rule such patients will be in surroundings that relatively are equally aseptic as those in the hospital, and the unfortunate epidemic of puerperal sepsis which marks the work in some of our best institutions could be avoided.

I have gone over perhaps somewhat sketchily and briefly the care of an obstetric patient by what I hope will be regarded as sensible standards. I do not believe that skilled obstetrics means dependence on intricate laboratory procedures, difficult operations, extensive hospitalization and elaborate nursing. It means rather the personal care, in so far as this is possible and practical, of the individual patient; and for proper appreciation of adequate obstetric services by the public an extended campaign of education may be necessary. The latter may with advantage likewise be directed to the doctor. I am convinced that in time a mutual state of confidence can be developed which will operate for the benefit of all concerned.

Very few of us have any knowledge of the progeny of the genial philosopher of the "Village of Falling Waters", but that wonderful doctor, Oliver Wendell Holmes, discovered a grandson of "Old Rip", who lived in Massachusetts and who slept for 30 years as a result of his devotion to his favorite medicine, "Elixir Pro". Rip Van Winkle, M.D., went to sleep in the days when bleeding, leeches, blisters, antimony, calomel and "ten and ten" were regarded as the sheet anchors of the art of medicine, and he awoke to an age when all such remedies were the anathema of most of the profession and the lancet and calomel were forgotten by all but a very few. One of Rip's colleagues told him to go to sleep another 30 years and he would come back and find practice more in accord with his training:

"But sleep once more till thirty years come round,

You'll find the lancet in its honored place,
Leeches and blisters rescued from disgrace,
Your drugs redeemed from fashion's passing scorn,

And counted safe to give to babe's unborn."
You will recall that Rip took his advice—only this time he told his wife to waken him every year when "Laylocks blow, for then the Doctors meet, and I must go." So it happens that in every medical society there is a somnolent Old Rip who wakes at intervals, yawns and says a few things about the ways of the practitioner of 50 years ago and how much better everything was in the days of yore. And so it happens that I am here. "Time for me to wake! 'Tis the month of May! Laylocks in blossom! The Doctors meet this very blessed day."

It happened that during the first 10 years of my medical life, calomel and the lancet were completely in disuse. An occasional man would take out of his vest pocket an old thumb lancet when he was going to scarify

the arm for vaccination. A few compromised with their conscience by giving blue mass, but calomel, never, and it was not until the pediatricians began to give babies 1/10 gr. of calomel that it came back into use.

Holmes' prediction came true; it was counted "safe to give to babes unborn". Yes, even the lancet came back and in modified form is again in use. We no longer inspect the blood to see if there is a "buffy coat" as an evidence of inflammation but we count and analyze the blood for all kinds of information. There will be found among older writers many deductions drawn from appearance of the blood which guided them in their diagnosis and prognosis, and which are now forgotten altogether.

We will tonight consider a few of the salient points in the history of medicine and particularly of midwifery. We will find that there has been a very interesting development. There have been years when medicine seemed to be scientific and rational, and years when it has been full of quackery and superstition. However, there has been a steady growth and truth has gradually prevailed, although we still have the quacks, the half-wits, and the cults with us. If we penetrate the clouds and mists of the centuries and study the classical era of Greek civilization, we find that there was at that time a very wonderful collection of medical lore and a well organized system of medical practice founded upon a previous civilization which had its beginning long before the historic era.

During the 500 years immediately before Christ rational medicine had thrown off the shackles of priest-craft and was emerging from the darkness of magic medicine. Even at that time there were practitioners who were noted for their skill in obstetrics and gynecology. However, most of the care of lying-in-women was in the hands of midwives, who only called in doctors when they failed to effect a successful delivery. Even in those early times the quack and the abortionist flourished and pursued their murderous trade. Then followed the centuries of the "Dark Ages" when medical science was driven to the East and was cultivated by the Arabian physi-

cians. Here and there in some monkish cell, would be a devotee of science who kept alive the little spark of medical truth, in the midst of the wreck of all knowledge that followed the downfall of Rome.

Then the "Renaissance" came with its wonderful development in all branches of human knowledge, and medicine gradually sloughed off the dense covering of ignorance and quackery that had covered it for so many centuries. We may be sure that here and there some faithful soul was ready at the approach of the new freedom to develop and spread abroad the old wisdom, so that when we look again, say in the fifteenth century, we will find that there had developed a marvelous accumulation of medical truth which was gradually being analyzed and built into the structure which is to be the foundation of modern medicine.

I have recently read a treatise on "Child Birth" or "The Happy Delivery of Women", translated in 1623, written by James Guillemeau, Chirurgion in Ordinary to the French Court. He was the son-in-law and the favorite pupil of Ambrose Paré. You will remember that Paré, besides being the Chief Surgeon of France was also an obstetrician and had introduced, or perhaps reintroduced, the operation of "podalic version". Guillemeau, in his book, urges its use in all cases of hemorrhage or convulsions, in addition to cases of malposition or deformity of pelvis. The description of the procedure itself goes carefully into the smallest detail; even the use of the fillet for securing the foot after it is brought down. Throughout the operation of accouchement forcé, every movement was to be done with the utmost gentleness and care. It was particularly urged that in making a version, the chin of the child should not be allowed to catch behind the symphysis pubis but the head should be turned; he had no forceps to use on the aftercoming head. We have here a great advance in the management of labor, as the principal instruments of the previous ages had been the blunt and the sharp hook, or crochet, and the vectis. Among other things of interest in this book, we find the following statement about the midwifery

habits of the American Indian, or probably the Mexican native:

"They that write the history of America due tell that the like of the women in that country which is that as soon as they be delivered (they are so kind to their husbands which took the pains to beget the child) that they presently rise and lay their husbands in their room; who are used and attended like women in child-bed, and in this manner they be visited of all their friends and kinsfolks, who bring them gifts and presents."

I believe that it is the aim of the committee to bring back this old custom. They call it better midwifery.

Much discussion is found in the book on the diagnosis of pregnancy and determination of the sex of the coming child. Many theories are advanced regarding the signs of pregnancy but no mention is made of the fetal heart. Laennec and his stethoscope had not come on the stage, although there is no doubt that the art of auscultation had been practiced by some of the followers of Hippocrates.

In the seventeenth century a new instrument was added to the armamentarium of the obstetrician. The forceps, designed by the Chamberlains, father and sons, of England, who kept secret the methods then used in midwifery, hidden from their medical confrères, which was the cause of much scandal.

There is great possibility that the ancients used instruments such as the vectis in the "classical" period, but we have no knowledge of them, and there is no doubt of the great advantage that forceps gave to the Chamberlains, and in time, to all of the profession and to patients. The earliest form of forceps were the so-called "straight" forceps with one curve suited to the child's head. Soon, the double curve, not only conforming to the child's head but to the mother's pelvis, was introduced. I recall seeing the straight forceps used by one of my older colleagues. Of course, that instrument could only be used when the head was low down. The introduction of forceps caused as serious dissension in the ranks of the profession as did anesthesia.

Our next stopping place will be the decade of the seventies, concerning which I should be well informed, because that is when I began to take notice. There are 4 names which im-

mediately come to mind when science in any of its forms during the seventies is considered. Pasteur, Lister, Bell and Edison were carrying on their basic experiments which led to the wonderful discoveries and inventions of the next decade. I remember a demonstration in 1878 of the arc light before our medical class and the remark was made that "if this lamp could be made practical what a wonderful light it would be". The incandescent light soon followed, in 1879. The telephone was also introduced into general use in 1879. Pasteur and Lister were fighting for recognition before the scientific societies of Europe, and a public demonstration of Lister's new antiseptic surgery was given before my class in 1878. We were on the threshold of the wonderful developments of the succeeding years.

You see the decade of the seventies was one of the most important periods in the world's history. Up to that time the progress of civilization was along deep unyielding ruts as it had been for ages. Apparently, there was little change in the relation of man to his environs in 1869. It was as it had been in 1860. In politics there had been great changes, but in science and the art of living there had been little change. But the seventies witnessed the success of 2 great inventions; the telephone and the electric light. The addition of these wonders to the life of man started a flood of great changes, particularly in the training of science to the needs of man. Isolated facts and observations were found easy to correlate and to fall in with the progress of events, making a broad foundation for the wonderful structure of scientific progress that followed; making the world such a wonderful place to live in.

Looking back over these 50 years is easy; and the importance of each event, and its relation to the whole story, is very clear; but in that decade of the seventies the importance of single observations were not so easy to understand. For instance, who could have foretold the outcome of Pasteur's experience before the French Academy when he demonstrated the existence of germ-life in all specimens of air taken from the various layers of

the atmosphere, except in those particular specimens taken from the top of Mont Blanc; and further, that putrefaction was developed in all such specimens of air. What a simple demonstration! The unsealing and testing of the flasks! A demonstration proving that "without germs there is no life".

A great revolution in scientific thought immediately started, stimulating examination of the effects of the germs in all their known forms, particularly in the art of medicine and especially in surgery. The obstetric art was also benefitted by this new theory: namely that exclusion of germs from organic tissue that had lost its power of resistance was *the one important factor in midwifery*.

As we look back to the conditions of obstetrics 50 years ago, there are some things that command our attention and wonder. To those of us who have lived through the period, it seems simple enough; a gradual advance, slow but progressive. In the seventies, the teachings of Holmes and Semmelweis had begun to influence obstetric teaching, although the baleful attacks of Hodge held back from Holmes the credit which was his due. Curiously, it was my lot to have as one of my very early patients an old lady whose husband, a Boston physician, had furnished the experience which led to the writing of Holme's paper. This physician had several consecutive deaths from puerperal sepsis, and he died of septicemia from a wound that he received in making an autopsy on one of these patients. Holmes taught that child-bed fever was carried from one patient to another by the accoucheur, the midwife, or the nurse, and he taught the necessity of cleanliness in the performance of their functions. Semmelweis, later, but independently, taught the same, demonstrating the truth of his claims by his results in the large obstetric clinics of which he was chief. Both of these men were attacked by their fellow practitioners and the necessity for their advocated precautions was denied.

Our lecturers on obstetrics, in the seventies, made very little of these teachings, Antiseptic precautions and ordinary cleanliness were slighted, and no proper technic was

taught in the college lecture-room or adopted as of first importance in technic in the Lying-in-Hospital, and much less in the private house. Midwives were unregulated, and in the metropolitan districts with which I was familiar they attended a very large number of confinements among the foreign groups. Occasionally you would meet a man who would not attend a confinement case while he was attending a scarlet fever patient, and objected to having a monthly nurse who had not had a few days quarantine between such cases. The doctor himself never refused to go to another confinement while he was taking care of a case of puerperal fever. In fact, the profession was always too willing to claim that the establishment of lactation was expected to cause a rise of temperature, and milk fever was differentiated from puerperal fever; a chill on the third day was not a cause of anxiety as was the sixth-day chill.

As a rule, except in instrumental cases, patients were confined on the left side and many would introduce the forceps in that position. All of the procedures necessary were done under the sheet, even introducing the catheter was accomplished by touch, and he was considered very unskilful who exposed his patient.

Operative midwifery in the seventies, presented a very different problem from today. The idea that a case of labor should be so guarded from every possible infection that cesarean section should have every opportunity for success had not become the ruling thought. In fact, a section was such a remote possibility that it never entered into the problem at all. Difficult labor meant version, forceps, or craniotomy. Rarely would an obstetrician be found who would take the position that an unborn child had equal rights with the mother to a chance for life. At times, some theologian would insist that the fetus should be delivered alive by section even if it did endanger the mother's life. This was in the days before laparotomy became common practice.

Cases chosen for section, after anatomic deformities, were those of convulsions and placenta prævia. The high mortality risks of

section done for convulsions delayed general use of the operation many years. In the seventies, however, section was rarely thought to be indicated. Long forceps, blunt hook, (the trochet) craniotomy forceps, perforator cranio-clast, cephalotribe, were instruments in frequent use and found in all obstetric kits. During the years preceding the seventies, there had been a general revulsion against section in any case that was not contracted to $2\frac{1}{2}$ in. Craniotomy and destruction of the fetus was held to be the proper procedure, and the mother's right to live was granted in every case that presented the possibility of delivery even with embryotomy.

At this date Listerism was slowly, very slowly indeed, being adopted by the surgeons of America. It was not until after 1880, that Lister's teachings were taught in the medical schools. The peritoneum was a *noli me tangere*. I recall removing a fibroid tumor of the rectus abdominus muscle. The peritoneum was opened during the dissection; causing great anxiety to the surgeon. Nothing happened, but it was several years before the peritoneal cavity became the "happy hunting ground" of the young surgeons.

Sims, Emmett and Thomas, were names to conjure with in the seventies. These men had explored a neglected department of surgery and had created the specialty of Gynecology. They found that the majority of child-bearing women were suffering from the effects of difficult labors, meddlesome midwifery, or simple neglect. The sufferings of our grandmothers, from complete prolapse, were unspeakable. We older men can recall such cases by the score. These great surgeons attacked the problem from the very beginning; not only did they urge upon their professional brethren the necessity for curing by operation the various lacerations of the soft parts, caused by the process of parturition, but they devised the necessary operations. They also urged immediate operation. All lacerations of the perineum should be repaired at once; internal laceration should be repaired as soon after labor as practical. Their teachings and their operations designed for the repair of injuries due to labor have not been im-

proved upon to any great extent. We all have our pet wrinkles and procedures, but we do not have so much opportunity to practice them; as the eventual adoption of the practice of immediate operation in cases of injury has had wonderful effect upon the health of our young mothers. As a corollary also, the obstetrician has developed a technic which has added the ounce of prevention so much needed by this department of the healing art 50 years ago.

Before the advent of abdominal surgery, most of the every-day work of the young surgeon was confined to the new art of Gynecology, which was so new that all of us started with the same handicap of ignorance but with the wonderful faith of patients in our omniscience. Here and there some one would rise above the average and become a specialist, but most of us after hearing one lecture by T. G. Thomas were willing to tackle any problem in sewing that we could get our hands on. He certainly was a great propagandist, and wielded a wonderful influence even in the preantiseptic period. His work was clean and his technic brilliant; his diction wonderful, and his influence for good midwifery was very widespread.

There was very little prenatal care either for mother or child, as the doctor was rarely consulted until the pregnancy was well along and then did not often make any examination. He told the patient to send a specimen at the seventh month and gave advice about constipation; unless a previous experience had suggested the possibility of pelvic deformity or of albuminuria requiring earlier examination. A large number of pregnant women did not consult any doctor until the beginning of labor; of course, the first confinement was usually the beginning of an association with the nearby practitioner, who thus became the family physician, and he usually had full notice of future labors. The result was that there were many emergencies: anasarca, and edema, anuria and convulsions; many difficult labors which should not have gone to full term. Many cases of placenta prævia were unsuspected until a profound hemorrhage indicated active intervention. Here arose an-

other controversy as to the necessity for an accouchement forcé, or a more conservative induction of labor with water bags, or should it be version or forceps?

Usually among the well-to-do there was a monthly nurse engaged before hand, but among the artizan class some neighbor woman or member of the family stood by to hold the patient's hand and wash the baby. Many of these women were very capable ordinarily but not of much use in emergencies. However, I learned much practical midwifery from these women whose experience of 20 or 30 cases far surpassed my own experience of 10 cases prior to hanging up my shingle.

The training of nurses in the regular schools connected with hospitals was a development of the eighties. The Memorial Hospital Training School, among the first half-dozen, was started in 1882; and a very early precedent of the flourishing visiting nurses business of today was started by the very first class in the new training school. The young women in training were taken outside into the tenement house service. At this time there were but 2 beds in our maternity service.

When we study the obstetrics of the seventies we find that a very limited training was given to the undergraduate. There were fine lecture courses by wonderful men with good text-books fully up to date, but very little practical training. A few cases were assigned every week to third class men, but many men graduated without seeing a case of labor. In my own case, for instance, I never received an assignment from the college, but my preceptor, the late Dr. Pierson, sent me to 10 cases before I received my degree, which placed me in an unusual class, because hardly anyone had gained so much experience. The fifteenth case that I attended, about 3 months after hanging out my shingle, was a case of placenta prævia central implantation. I was left alone with it to make a podalic version. I do not know of any experience equal to that—the sensation of hot blood pouring down along your arm as you push your hand up into the uterus reaching for the feet, which feel like nothing that you ever read about.

Such were the conditions of our work. As-

sistance was not often available and we had to learn our obstetric experience at the expense of our patients. Thus, one attended these women almost literally text-book in hand, because practical teaching by word of mouth was not available. Most women were confined in their homes. When the hospital was first built, a two-bed maternity building was all that we were permitted to have because "free maternity service was conducive to immorality".

As to my own obstetric record there are some interesting points illustrating the benefit of improvements that have been going on in the practice of midwifery. I have attended nearly 2000 cases. My first case was twins, and so, for that matter, was the last case. There were 12 maternal deaths; 10 of these in the first 1000 cases. During this period I was having many difficult cases referred to me to finish, particularly by the midwives of the neighborhood. Four of these deaths were due to eclampsia; 1 of them being an old case of chronic nephritis; 6 deaths were due to sepsis, 3 of which were cases of epidemic influenzal pneumonia, which killed so many pregnant women in 1888 and 1889; 2 women died from syncope—getting out of bed and falling down dead—1 on the first day and 1 on the fourth day, both patients having been delivered with much difficulty.

Of the 2 maternal deaths in the last 1000 cases: 1 was a consultation case seen on the third day of labor in which I made a most difficult craniotomy, where the patient was septic at the time of delivery and died the next day; the second was one of the syncope patients who got out of bed on the first day after a very difficult instrumental delivery.

There were 5 cases of craniotomy for various reasons, mostly for contracted pelvis; 1 was a child that weighed 16 lb. Altogether, there were 97 still-births. There were 218 cases where either long or short forceps were used and there were various cases when the blunt hook was used to deliver the breech. There was 1 case of cesarean section. I saw in consultation a case of locked twins. We amputated the head of the first child, turned the second and delivered by the feet a live baby.

There were a few monsters; the most interesting being a true cyclops.

The still-births had many causes: premature births, large infants and consequent delay; and many cases of podalic version resulted in still-birth because of accompanying conditions such as placenta prævia and convulsions.

The last 1000 cases were among the better class of women who consulted the doctor early, and could be called selected. More frequent examinations of urine, pelvic measurements, improvement in diet, earlier and more frequent use of forceps; all were factors in a better midwifery which has been improving decade by decade for many years.

The modern practice of obstetrics has developed wonderfully since those days—50 years ago. No longer does one go into general practice without a fairly abundant opportunity to become acquainted with the mechanics of the art. Chloroform was used for analgesic purposes by most accoucheurs but there were many men who opposed its use, as did also the British opponents of Sir James Simpson who was having great difficulty in persuading the men — Doctors, Bishops and Members of the Parliament—that good Mother Eve's flirtation with the serpent of Eden should not be paid for by the sufferings of her daughters.

I have had to do with 2 cases of absolutely painless labor; one was a German multipara who never knew when she was in labor until pressure upon the perineum gave her the same sensation as a defecation; the other a case of narcolepsy where any painful sensation anywhere in the body caused her to go to sleep. This curious inhibition would come at any time, in the dentist chair, after a fall, and was present during her 4 labors which, however, were not very prolonged or difficult.

Our greatest handicap was the fact that most of our labor cases had to be attended without skilled assistance. It was not considered necessary to have another doctor to give the anesthetic even in instrumental cases. Consultants would be called in for eclampsia, but high forceps and versions were, as a rule, one-man jobs.

There is no doubt that midwifery has made

steady progress during the last few years and now the call is for "better than better" midwifery. There is room for improvement in the care of women confined out of the hospital, and even in hospitals when the staff are not constantly alert to improvement in the technic. There is one improvement which I think should be urged; that is, more women should have labor induced before term, in order to avoid cesarean section. I am aware that I am not entirely orthodox in this position, but certainly I think that repeated section is not good surgery.

Let us recall the axiom of Guillemeau: "The greatest disease that women can have is that of the 9 months, the crisis and cure where-of consists in their safe delivery."

RECENT SURVEY OF ESSEX COUNTY OBSTETRICS

WALTER B. MOUNT, M.D.,

Secretary Medical Commission for
Maternal Welfare

Newark, N. J.

In Essex County there are 21 communities with a total population of 746,000, according to the latest available figures; Newark having a population of 474,000; East Orange, 65,000; Orange, 37,000; Irvington and Montclair about 34,000; Bloomfield, 27,000. There are about 1100 physicians of whom 630 are in Newark, 82 in East Orange, 69 in Montclair, and 44 in Orange. Of these 1100 physicians, 531 replied to a questionnaire as follows:

Specializing in obstetrics and gynecology.....	62
Specializing in obstetrics only	4
Specializing in gynecology only	10
Consultant in obstetrics only	2
Do obstetrics with other practice.....	250
	312

Deliver in hospital only	90	30 %
Deliver in both hospital and home.....	191	64 %
Deliver in home only	5	1.7%
Not specifying	12	

298

Do no obstetrics 231

Replies were received from 15 of the 21 Boards of Health with the following information, which is necessarily incomplete. These 15 communities, comprising 98.5% of the population of Essex County, reported 15,204 births in 1928.

Home deliveries	6,168	40.6%
Hospital deliveries	8,743	57.5%
Not specified	293	1.9%
	15,204	100 %

Three communities also reported 1631 hospital deliveries for non-residents:

East Orange	453
Montclair	156
Orange	1022
	1631

This gives corrected figures of:

Home deliveries	6,168	36.7%
Hospital deliveries	10,374	61.6%
Not specified	293	1.7%
	16,835	100 %

The statistics from Newark for the past years are interesting; showing a decreasing birth rate and a decreasing number of patients delivered at home or delivered by midwives

	1928		1927		1926		1925	
Total births	9,802	20.7%	10,042	21.5%	10,460	22.7%	10,852	23.9%
Hospital deliveries	5,390	55 %	4,995	49.7%	5,003	47.8%	4,845	44.6%
Home deliveries	4,412	45 %	5,047	50.3%	5,457	52.2%	6,007	55.4%
Physician—(hospital and home deliveries)	7,809	79 %	7,704	76.7%	7,958	76.1%	8,053	74.2%
Midwife	1,993	21 %	2,338	23.3%	2,799	23.9%	2,799	25.8%
Home deliveries:								
Physicians	2,419	55 %	2,709	54 %	2,955	54 %	3,208	53.8%
Midwife	1,993	45 %	2,338	46 %	2,502	46 %	2,799	47 %

The only other community indicating the number of deliveries by midwives (Nutley) showed only 15% (49 out of 324).

The proportion of hospital deliveries in the various communities was:

District	Percentage
Belleville	39
Nutley	44
Irvington	52
Newark	55
Millburn	57
Orange	63.5
South Orange	67
West Orange	68

Montclair	71
East Orange	74
Glen Ridge	77.5

This last borough showed 45 hospital deliveries in 9 different hospitals. There are about 500 obstetric beds in hospitals in the county. There are 21 hospitals accepting obstetric patients, and in addition a number of small private hospitals.

REPORT IN REGARD TO RELATION OF ABORTIONS TO GENERAL MATERNAL MORTALITY

JULIUS LEVY, M.D.,

Children's Bureau, State Department of Health
Trenton, N. J.

We have carefully followed up the puerperal deaths in Newark during the years, 1924, 1927, and 1928, with the following results: Of the 232 puerperal deaths, we were able to determine the period of gestation in 212. The death certificates do not give the period of gestation and in some 20 cases the doctors,

upon inquiry, were unable to recall the actual period of pregnancy. This would suggest the desirability of requiring on the death certificate the period of gestation. Including this fact on the death certificate will help to clarify the question of obstetric and non-obstetric deaths in relation to maternal mortality.

When we classify these deaths by trimesters of pregnancy, we find that 18.4% occurred in the first 3 months and 30.2% in the first 6 months of pregnancy. This is a very important fact to bring out in a discussion of the maternal mortality problem. It to a considerable degree removes responsibility from the shoulders of physicians whose obstetric skill is an important factor in death

at or about term but cannot have such a considerable part in deaths which occur during the first 6 months of pregnancy. In the 3 individual years, the proportions varied, with an apparent increase for each succeeding year. In 1924, the first trimester represented 14.6% and the second trimester 12.2% of the puerperal deaths; in 1927, the first trimester represented 25% and the second 59%; in 1928, the first trimester represented 16.1% and the second 17.7%. If we combine the 2 trimesters, which would seem desirable on account of smallness of the figures, we find that in 1924 the first 2 trimesters represented 26.8% of the total, in 1927 they represented 30.9% of the total, and in 1928 33.9% of the total. This would indicate that the deaths in the first 6 months of pregnancy have become a greater proportion of the total each year.

Now, what are the causes of these deaths which constitute about 1/3 of all the puerperal deaths?

In the first trimester, for the three-year period, abortions constituted 64.1% and ectopic gestation 30.8% of the deaths; in the second trimester, abortions constituted 56% and the toxemias 28%. Abortions were responsible for 20% of the total maternal mortality. Experience justifies us in doubting the accuracy of some of the reports which assigned the deaths to natural abortions, and for practical purposes we are combining them under the heading of abortions. The number of years and the number of cases under consideration are too small to permit determination with any degree of definiteness of the question whether abortions are increasing or are responsible for a larger number of maternal deaths than formerly. If we study the deaths in the *first 6 months* of pregnancy by causes for the 3 individual years, we find that the percentage of puerperal deaths in this period from abortions has practically remained constant, having been 59.1% in 1924, 61.9% in 1927, and 61.9% in 1928. But in 1928, abortions formed a larger proportion of the total puerperal deaths than in 1924, though the number was about the same.

It might be pointed out, however, that a constant number of deaths from abortions in these 3 years indicates probably an increase

in non-fatal abortions. With the greater availability of hospitals and physicians, with wider knowledge of surgery and asepsis, it is reasonable to believe that the fatality rate in abortions is decreasing. The same number of deaths then suggests a greater number of abortions.

The deaths associated with ectopic gestation probably fall in the hands of gynecologists, surgeons, and general practitioners. The deaths associated with abortions similarly, whether occurring from a natural or artificial cause, fall into the hands of general practitioners in private practice and into the hands of physicians, gynecologists, and surgeons in hospitals. The obstetrician has had to bear for so long a time the onus of persistent maternal mortality that we are happy to have this opportunity to point out that the causes of this mortality cannot properly be made part of obstetric responsibility.

If you subtract the deaths associated with the first 2 trimesters of pregnancy, we would be dealing with a group of deaths which more strictly are associated with obstetric care and management. I thought it would be interesting to determine the maternal mortality for this group. In 1924, there were 87 deaths. Of this number, we were able to determine the period of gestation in 82; of these, 60 occurred in the third trimester, giving a maternal mortality of 5 per 1000 deliveries. In 1927 there were 76 deaths, of which we were able to determine the period of gestation in 68; of this number, 47 occurred in the third trimester, giving a maternal mortality of 4.5 per 1000 deliveries. In 1928, there were 69 deaths, of which we were able to determine the period of gestation in 62; of this number, 41 occurred in the third trimester, giving a maternal mortality of 4 per 1000 deliveries. It would appear from a comparison of these 3 years that if we omit the maternal deaths associated with the first 6 months of pregnancy there has been, since 1924, a decrease in maternal mortality of 20%. It appears then that even if we omit puerperal deaths associated with abortions there is still a high maternal mortality. This is made clear by contrasting the maternal mortality for these 3 years during the third trimester alone with the en-

tire mortality of certain other countries. In 1920-1924 the maternal mortality rates in Spain, England and Wales, Japan, and Finland was below 5, and in Italy, Sweden, Norway, and Netherlands was below 3 per 1000.

SUMMARY

(1) Maternal mortality in third trimester of pregnancy has decreased since 1924.

(2) This mortality is still high in comparison with other countries.

(3) Abortions cause 20% of the maternal mortality.

(4) One-third of the maternal mortality is associated with the first 6 months of pregnancy.

(5) Abortions cause 60% of these deaths (deaths in the first 6 months).

RECOMMENDATION

It is recommended that State Registrars be requested to obtain the following information as supplementary report for all puerperal deaths:

- (1) Number of previous pregnancies.
- (2) Period of gestation at time of death.
- (3) Was there any previous attendant—doctor or midwife?
- (4) If the patient died in the hospital, did the delivery or abortion occur at home or in hospital?
- (5) Was there any previous attendant, physician or midwife?

PRESIDENTIAL ADDRESS*

L. L. MIAL, M.D.,
Morristown, N. J.

It is probably expected of your retiring president that he review the work of the society during his administration, and make suggestions if possible and where necessary for future guidance, rather than prepare a scientific paper. As we are conducting a professional business with society at large, it conceivably may be his duty to speak about public relations also.

We are glad to note an increasing interest in the work of the society, as shown by larger attendance and by full and interesting discussions. Our programs have been scientific and highly instructive. You recall Dr. Orton's masterful lecture at the December meeting on "Uses of the Bronchoscope in the Removal of Foreign Bodies; Diagnosis and Treatment", and no doubt many of us have been materially aided by the lessons then learned. Our meeting in March at Dover was most enjoyable. Dr. Gibbs' paper pointing out the most important "Symptoms and Differential Diagnosis of Eye Conditions Most Frequently Encountered" by the general physician, was very timely and instructive, and has been published in the Journal. Dr. Eckhardt's scientific discussion of diet in his paper on "Obesity" can be studied with much profit by each one of us. It has been shown that rats, after administration of a diet deficient in certain vitamins develop a marked suppurative nasal sinusitis, and that correction of the diet, in the earlier stages, will cure the sinusitis; I simply mention this one feature in order to emphasize the importance of diet.

The June meeting, if comparisons are at any time permissible, was the most interesting of all. The reports of cases by Dr. Collins, and the lantern slide demonstration of the microscopic pathology by Dr. Young, carried profitable lessons.

Full reports of all these meetings have been published in the Journal, which fact attests their value. We appreciate the compliment and wish to express our gratification with the efficient work of our reporter.

We regret the failure of special meetings during the year. It was intended to hold two, but chosen speakers disappointed and failed us, unfortunately, too late to make other arrangements. The question arises, do we or do we not desire more than the regular quarterly meetings? Three special meetings, at which eminent men spoke on especially interesting subjects, were held during the previous year. At only one of these was there a satisfactory attendance. Some of us belong to more societies than we can attend. I am sorry to say that some of us only belong to

* (Delivered Morris County Medical Society, September 24, 1929.)

one society and find it difficult to attend all its regular meetings. This question was discussed at the last meeting of the American Medical Association, and from the minutes I get this suggestion and offer it to you: "The meetings of hospital staffs and county medical societies could be more beneficial, and have a larger attendance, if programs were combined under the auspices of the county medical societies. Discussions of postmortem reports, which form the basis of so many programs of hospital staff meetings, if utilized at meetings of county medical societies would add to the value and interest of the latter." Men from allied professions, chemistry, physics, physiotherapy, might be invited to speak to us.

There are many legally qualified and reputable physicians in the county who are not members of this society. While not holding that numbers alone make a good society, it is well to use every means to get all possible genius and worth enrolled in our membership. I have here a list of all the registered physicians in this county from the year 1896. With your approval I will hand this to the secretary with the suggestion that notices of our meetings be sent to these men from time to time inviting them to join in our meetings. In this way they may become interested and join the society.

It is gratifying to be able to testify to the cordial relations, good fellowship, friendly and helpful coöperation existing among our members, and an ardent desire to promote the welfare of medicine. I have noticed also a decreasing tendency and necessity for calling help from the outside, and from long distances, which in itself speaks for the ability of our members. At the same time, we welcome visits of eminent men who come in the true spirit of medicine, with a lesson to teach, a message of merit, or an improvement in surgical technic. There is one thing, however, to which I would like to invite your attention, which is essentially disturbing, has occasioned some comment, and might tend to disrupt our cordial relations. I refer to the occasional visits of a man, more or less eminent, supposedly backed by the prestige of a great clinic, who comes into our county when there

are a sufficiently large number of operable cases in a certain popular disease to make it profitable, and does a full day's work. We do not believe in super-specialists, particularly in tonsil operations. We do not in the least deny the right of any person, after he has decided to have his tonsils removed—and we know, too, that in these days many people make their own diagnosis in this condition and decide when, where, and by whom they shall be treated—to go to that man who is selected. We should in every way discourage these county invasions and such wholesale surgical practice. The surgeon's obligations and responsibilities to a patient do not end when the operation is over. Moreover, the custom is considered as a reflection upon the ability of our local men; it is questionable ethics, smacks of commercialism, and should be discouraged and discontinued before it becomes a fixed habit.

Under our sound business policy, I can report steady progress toward the fulfilment of our responsibilities as physicians to the public. Lord Dawson of Penn, says that the problem of medical practice in relation to hospital provision, and the problem of how to treat patients of limited means, have not been solved in any country. I think this matter is being handled in our country in a progressive and gratifying way. We have 3 hospitals well equipped and managed whose medical staffs are giving liberally of time and service in treating the worthy poor. The question arises: is this service abused? We have a very prosperous community—high wages—no one with a "will to work" need lack for a job, and few are out of employment. Yet the reports from our hospitals show a steadily increasing number of patients treated in the out-door clinics. How shall we meet this abuse which is costing the public more and more each year and taking from the doctors a legitimate source of income? Shall we have pay clinics, such as recommended by the American Medical Association—clinics in no sense charity but organized, owned, and operated by all the members of each county society? The plan has been published in the *Journal*. Read it and study it.

I also want to speak at this time of the

wide discussion going on just now in the medical, and also the lay, press dealing with such questions as "state medicine", disorganization of the medical profession, and kindred topics. Doubtless the members of this society have been reading the articles on these subjects in the various magazines, and I urge that each of us shall continue to read and also to study them. What is "state medicine"? Can we as a profession be blamed for disorganization and the evils which, according to a writer in the August number of *Current History*, accompany it? Before enumerating these evils, I would like to read the note with which the editor of *Current History* prefaces the article containing them and which is entitled—"The Public Penalized by Medical Disorganization".

"Some of the principal reasons for the growing agitation of state medicine or at least of *making* the medical profession serve the purpose of a social service are set forth in the following article, which has been endorsed by bodies investigating the subject. Apart from being a chemist whose researches have brought him into close contact with certain aspects of medical practice, the writer has made an intensive study of the organization of medical facilities from the standpoint of the public."

And now the evils of which this writer accuses the medical profession: (1) Neglect of preventive medicine; (2) inadequate supply of physicians; (3) inaccessible doctors; (4) quackery flourishing (druggists prescribing and the great discovery that thousands treat themselves.)

According to the author, the profession would be freed of all these evils under *state control*. I would suggest that you read the excellent answer to this article and others in the August 10 number of the *American Medical Association Journal*.

The practice of medicine embraces the science of medicine, the art of medicine, and the business of medicine. It is the second, the art of medicine, which is not taught in our schools, but which must be emphasized to a great degree. That seems to me to include "the manner of approach to the patient, the psychology of the sick person, and the ability to evaluate quantitatively the mental versus the physical suffering". You may call it any name you wish—personality, sick room psy-

chology, or in the more business sense the art of handling patients. All this knowledge, coupled with a closer attention to the business of medicine and added to our splendid scientific knowledge, would do much to answer and silence the due and undue criticisms which are levelled at us, and counteract competition, if you care to call it such, of the quacks, druggists' prescribing, etc. Excuse my rashness here, but may I suggest to our schools of medicine a course on the "art of medicine" and one on "business"?

The question is too vast for me to go into deeply at this time, but I do emphatically feel that each one of us should be awake to the talk and propaganda which is being circulated. *We* know that the writer of the article referred to is wrong, but the public does not know this. We cannot afford to minimize the power of the printed page. With such agitation going on, we shall eventually find ourselves bound by some law defining "state medicine" and regulating the practice of medicine, which conceivably may be as foolish as the act to regulate chiropractic that was passed by one legislature. Let me read part of that act to you:

"The term chiropractic when used in this act shall be construed to mean and be the same given to the study and application of a universal philosophy of biology, theology, theosophy, health, disease, death, the science of the cause of disease and art of permitting the restoration of the triune relationships between all attributes necessary to normal composite forms, to harmonious quantities and qualities by placing in juxtaposition the abnormal concrete position of definite mechanical portions with each other by hand, thus correcting all subluxations of the articulations of the spinal column, for the purpose of permitting the recreation of all normal cyclic currents through nerves that were formerly not permitted to be transmitted, through impingement, but have now assumed their normal size and capacity for conduction as they emanate through intervertebral foramina—the expressions of which were formerly excessive or partially lacking—named disease."

I once heard a chiropractor, attempting to qualify in court as an expert on mastoiditis, say that he cured this disease by titillating the fourth cranial nerve—about the most inaccessible nerve in the body, and the sole function of which is to supply the superior oblique muscle of the eye. Here were 12 jurymen, a judge, 2 lawyers, 2 doctors, all wasting time

and money. Can you imagine a situation more pathetic?

However, since an act has been passed regulating chiropractic under the above definition, one wonders what monstrosity and imposition may come forth under the name of state medicine. That day when medicine is organized on a purely business basis, the heart, as the Journal says, will go out of it. For this profession is of more intimate and personal character than any other. Not for a moment do I believe the day of individualism has passed—we need more—nor will it ever pass. Join the American Medical Association. You will find in its Journal, in connection with our own State Journal, a veritable library of information that will excite your interest and guide you. Educate your patients as far as possible and ding-dong these matters into your legislators' ears.

If any further emphasis is needed to stress the point, of the power of flippant talk and propaganda on an apathetic public, I need only mention prohibition. We were napping when that was put over. A prominent member of our society wrote me, as President, during the year this letter:

"Dr. Thayer spoke at length in his presidential address this June before the American Medical Association on this subject, advising temperance in discussing it. His sentiments were approved. Prominent and influential men are sometimes flippant when they seem to be sincere. The New York Herald pointed out to Mr. Ford, when he said that he would go out of business if prohibition failed, that Model T made him a wealthy and prominent man before 1919. And, moreover, Mr. Ford has factories, and is establishing others, in countries where prohibition does not exist.

Mr. Hoover recently told the Women's Christian Temperance Union to preach temperance and not to rely too much on prohibition, seemingly taking a backward step, reminding one of Secretary Hay's famous remark that diplomats, women and crabs were much alike in that their movements, were erratic—when going they seem to be coming and vice versa—indicating indecision, vacillation, hysteria, and finally acting before a plan and purpose were well thought out. It seems to me that all legislators are too often that way."

Pasteur, the immortal man whom you are eagerly awaiting to hear about, and I will not detain you long, gave to us scientific facts. An eminent member of the New York Bar, Judge Benjamin Cardozo, in an address, "What Medicine Can Do for Law", before the New York Academy of Medicine said:

"A question of scientific fact is at the core of other problems, juridical in form, and yet intense, or so I hear, in their emotional appeal. What is a beverage, and when is it intoxicating? We look then to you, to the students of mind and body, for the *nutriment of fact*, solid if not liquid, that in many a trying hour will give vitality and vigor to the tissues of our law."

Well, a beverage has never been defined as medicine, so I would advise you to follow Pasteur's discovery and keep the air out of your grape juice, or else take it as medicine. Has not nature given us in this process of fermentation a real hint as to what a temperate beverage, I should say *tonic*, is? Enforcing Volsteadism is just as easy as preventing fermentation. Why not repeal the whole thing, and walk out of the tangle of hypocrisy manfully rather than, crab-like, trying to back out, make things consistently worse?

I have enjoyed the work of the past year. It has been of great benefit to me. I have learned a lot. I have received more than it has been possible to give. I realize that I have been a "flat tire", though you may suspect tonight that all of the wind has not been quite exhausted. I have been forced many times to "pass the buck", to use a common term: To say "Let George do it", and right well he has done it. I am sure that you will join with me in thanks of appreciation and approval of our noble secretary's work. Keep him on the job as long as possible.

To be held in friendship and trust by one's colleagues, is one of life's greatest possessions. I take it that the presidency of this society was bestowed in that spirit and I wish to express to you my most sincere appreciation for so honoring me.

I know and I am reminded in many ways that I cannot do much of the work that once was easy. The years automatically count themselves, and I, at least, realize that they have passed with more than satisfactory rapidity. But as Bismarck once remarked: "I hope I do not exaggerate when I say that I can meet incompetency half-way."

The thrilling—it is just that—part of my work, that of the heroic appeal, surgery, and I can imagine no work which brings greater

satisfaction, I have delegated to younger, more competent hands; but the lessons of long experience, the friendships, and confidences gained, I cannot delegate, I cannot bequeath. I shall continue to do that which I can still do well, this being the only formula yet suggested that helps one to be inefficient and happy. And so, in this spirit I shall, and we all, continue on. It is better expressed by lines which I shall quote:

"Forty years on, growing older and older,
Shorter in wind as in memory long,
Feeble of foot and rheumatic of shoulder,
How will it help you that once you were
young?
God give us bases to guard or beleaguer,
Games to play out whether earnest or fun,
Fights for the fearless and goals for the
eager,
Twenty, and thirty, and forty years on."

Dogwood

BY MARY ELIZABETH ROBINSON

Now that you fail me I must rise and go
To find my solace among trees again.
All your misunderstanding, your disdain,
Your cruel blindness, that have hurt me so
Belong to Winter, and must yield their place
With fading snow upon the upward slope—
Yield to the dogwood bloom. Returning hope
Floods through my heart again with April
grace.

I must go out among the April trees—
All tender green—and there shall come to me
The peace I never found against your breast;
Wake to the ultimate loveliness of these:
Dark single violets, and the dogwood tree
And the first bird-note—with my heart at rest.

(Harpers Magazine, Aug. 1928)

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CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

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MATERNAL MORTALITY

"Six or 7 women out of every 1000 who are confined die from causes directly or indirectly related to pregnancy, labor, and the puerperium." This statement, from one of the outstanding obstetricians of this country, expresses very bluntly a situation toward the study and control of which the medical profession the world over is devoting much effort.

Nearly a century ago, in his famous essay upon "The Contagiousness of Puerperal Fever", Oliver Wendell Holmes said: "The woman about to become a mother, or with her new-born infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden or stretches her aching limbs. The very outcast of the streets has pity upon her sister in degradation when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law, brought down upon its victim by a machinery as sure as destiny, is arrested in its fall at a word which reveals her transient claim for mercy. The solemn prayer of the liturgy singles out her sorrows from the multiple trials of life to plead for her in her hour of peril."

Despite the improvements in obstetric technique which followed the epoch-making work of Holmes; despite campaigns urging prenatal care, and the work of numerous bureaus and agencies occupied with the problem, if statistics may be relied upon there has been no im-

provement in maternal mortality in the United States during the past 10 years; as in 1915 in the registration area the rate was 6.1; in 1920, 6; and in 1927, 6.7 per 1000 births.

Two-fifths, or over 40%, of maternal deaths are due to a presumably preventable cause—infection; 27% follow eclampsia and toxemias, also preventable conditions; the remainder arising from abnormalities of the process of labor necessitating operative intervention, and from the unavoidable and unpreventable accidents which occur. Even though labor itself is a physiologic process which may be expected under normal circumstances to terminate normally and spontaneously as is illustrated in savage and primitive peoples, it has long been recognized that the higher the stratum of civilization, the more complicated apparently, and the more dangerous, the process becomes. While this may be due in part to the fact that primitive peoples keep no vital statistics, and life among them is more or less governed by survival of the fittest, and in part to the fact that refinements of civilization and physical development of peoples follow by no means parallel paths, it cannot be denied that much of the morbidity and mortality consequent upon pregnancy may be laid at the door of the many methods which have developed from the desire to make pregnancy and childbirth more easy, more comfortable, and more rapidly accomplished.

There is a more or less general demand for better care and a more or less general coöperative effort to achieve it; despite which the situation, if no worse, is certainly no better.

The causes of maternal mortality in general may be grouped as:

(1) Infections; which constitute the greater number.

(2) The diseases of pregnancy and labor, such as nephritis, eclampsia, pernicious vomiting, and so on.

(3) Hemorrhages and accidents, such as abortion, placental abnormalities, and the like.

(4) Abnormalities, either in mother or child, which necessitate operative procedures.

(5) Unavoidable accidents, such as emboli, shock and cardiac failure.

The majority of the causes thus listed are to a greater or less degree preventable and it is for this reason that there have been and still are educational campaigns urging the necessity for prenatal and postnatal care and observation. The failure of such campaigns to influence maternal mortality is, of course, affected by a variety of causes, but undoubtedly the most prominent factors at present are: first, the fact that antenatal and postnatal care are more often sporadic and spasmodic than consecutive; and second, that the training in obstetrics now given in the medical schools of the United States, as well as other countries, is chaotic rather than systematic and based in too large degree upon the personal fancy and idiosyncrasies of particular teachers.

It cannot be denied that the greater the degree of interference with the process of labor the greater the likelihood of infection and the higher the mortality, nor that there is too great a tendency to interfere too often, too soon, and to too great a degree. Despite the development of obstetrics as a specialty, the bulk of deliveries are and will be conducted by the general practitioner, and his morbidity and mortality are naturally in direct proportion to his skill and cleanliness. That maternal mortality remains so high furnishes indisputable evidence, therefore, that there is something wrong, either with his conception of the situation as a whole, or with the man-

ner in which he has been taught to approach it.

Whether or not obstetrics is a specialty, there is no doubt that it demands a definite degree of specialized training. Antenatal care is negated if the intranatal and postnatal care are left in the hands of those without training in the management of conditions which may have been discovered. Whenever the patient whose toxemia has been discovered and as far as possible controlled, or whose contracted pelvis has been recognized during the period of antenatal observation, has entered her labor under the direction of those who have had her under observation, the resulting mortality has been definitely lower than when she has been passed on to those without particular training in the management of such conditions. The obstetric specialist, however, cannot be looked upon as the perfect solution of the problem; not as long as one teaches that labor is entirely a pathologic process requiring a rapid, artificial termination; another that it should always be artificially inaugurated, and others promulgate a variety of methods designed to shorten, eliminate, or modify the normal, physiologic phenomena and mechanism.

There is undoubtedly too great a tendency to interfere and to make obstetrics a surgical procedure. There is too early and too general a resort to the use of pituitary extract, for example, to increase the vigor and violence of uterine contractions; too early and too frequent a resort to instrumental and manual methods of delivery; *while the resort to cesarean operations as a remedy for almost all the complications and diseases of pregnancy has passed all bounds*; this in spite of the fact that 90 to 95% of all labors terminate spontaneously.

The high incidence of maternal mortality may without doubt be largely accepted as due to:

(1) The prevalence of methods designed to expedite delivery; especially those utilizing instrumental and surgical interference.

(2) The fact that antenatal, intranatal, and postnatal care are not consecutive and carried out by the same group or individual.

(3) Failure to recognize abnormalities

early enough, coupled with the failure to treat them systematically.

(4) Lack of adequately trained personnel consequent upon imperfections in the present teaching of obstetrics.

It is time for both adequate realization and grave consideration of a situation arising from a physiologic phenomenon which must forever be confronted.

A TASK FOR COUNTY SOCIETIES

The Executive Secretary of the Medical Society of New Jersey has on several occasions urged upon county society officers the necessity for and advisability of conducting local campaigns against quackery, dangerous medical advertising, and mistaken or misdirected efforts on the part of laymen venturing into the medical field. He has expressed the belief that more effective work can be done, toward control of such evils, by county than by state or national organizations; pointing to the greater influence of a local physician dealing with a local newspaper manager, for instance, in the matter of false or misleading advertisements. Recently his theory has been beautifully demonstrated, and a report of that experience is given in the hope that it will stimulate similar action in other counties and with regard to similar or other objectionable health propaganda.

In October 1929 we chanced to notice the following advertisement in the regular monthly News Bulletin issued by one of the largest athletic clubs in the state.

TURKISH BATH DEPARTMENT

Men Only

Hydriatic (or Turkish Bath)	\$3.00
Consists of steam room, electric cabinet sweat, salt rub, shower bath, scotch douche and a vigorous massage. (Ultra-Violet Ray with Bath 50 cents extra.)	
Electric Cabinet Bath or Sweat.....	\$1.25
Good for reducing, colds, and elimination of body impurities.	
Body Massage, oil, alcohol or liniment.....	\$1.50
Ultra-Violet Ray Treatment (single treatment) \$1	
(Six treatments, \$5.00)	
Deep Therapy Lamp and Zoalite	\$1.00
Good for colds, lumbago, sciatica, neuritis, sore and contracted muscles, lameness, etc.	
Vibrator—complete body	\$1.50
Baking—special treatment	\$1.50

SPECIAL TREATMENTS FOR COLDS, RHEUMATISM, NEURITIS, SCIATICA, LAMENESS, ETC.

Prices on Request

Hours 11 A. M. to 7 P. M.

(Except Sundays)

At Other Times by Appointment

A copy of that club announcement was sent to the President and to the Secretary of the Essex County Medical Society, together with a letter, of which the following paragraphs are a part:

"I am under the impression that a good deal of harm is being done by the reckless use of sunlight lamps, ultraviolet rays and other mechanical appliances used in clubs and gymnasiums attached to various organizations. Perhaps that matter should be investigated as well as the question of violation of the Medical Practice Act.

The Newark Athletic Club would seem to be a good place to start action because a number of prominent physicians in Newark are members of that club—for instance, Dr. Clarence O'Crowley, an Ex-President of the Essex County Society, is, I believe, quite a power in the club. I am, myself, a nonresident member and, if I can be of any service, will enter into negotiations with the club officers, but I feel that better results will be secured if this is handled by the county society through some of the prominent local physicians."

The matter was taken up by the county society officials and, following our suggestion, Dr. O'Crowley was asked to present a complaint to the club management and seek a stoppage of such practices and advertisements by the club. It is a pleasure to report that he met with most courteous consideration and that the State Medical Society received, on January 21, 1930, the following letter:

"I have been instructed by our Directors to advise you that the law relative to use of electric appliances in our Turkish Bath Department will be conformed with.

(Signed)

R. C. RIEDINGER,

Executive Secretary"

It is not sufficient to say that this was a notable and gratifying action by the club—it was, in fact, a noble act, for we learned in the course of negotiations that the club was deriving a large income from the use of the violet ray and sun-light lamps. All over the country this is being done—by social clubs of great variety, golf, athletic, Y. M. C. A., etc.—and it is reported that one Philadelphia Club last year took in \$80,000 from this revenue source. We owe the Newark Athletic Club a special vote of thanks for considering the appeal and explanation of the medical profession, and for putting aside the possibility of great financial returns when it was shown that harm might be done some of its members through its having innocently invaded the field of medical practice and entrusted untrained employees with the handling of elements not entirely devoid of danger.

The Essex County Society, and especially Dr. O'Crowley, can be congratulated upon the success of their efforts, and we again suggest that county medical societies make it a regular procedure to observe violations of the medical practice act and false medical publicity, and, to attempt the correction of such evils locally.

SILLY CENSORSHIP

Everyone interested in educating the public regarding health matters, and appreciating all the natural difficulties attending such teaching efforts, rejoices in the recent decision of the United States Circuit Court of Appeals, District of New York, reversing the lower court and exonerating Mrs. Dennett of the charge of sending "lewd, lascivious and obscene matter" through the mails. As the N. Y. Herald Tribune said, this whole affair—the charges against Mrs. Dennett, and her prosecution—"seems to have been conceived in obscurantism and to have partaken of persecution; there are still people who appear to believe that children should learn nothing of sex except what they may pick out of the gutter". It is rumored that the prosecuting attorney will carry the case to the Supreme Court. Perhaps it is just as well that he shall do so, for we may hope that a confirmation

of the Appellate decision will not only settle this particular case but establish some definite legal principles for guidance in determining the limitations of censorship.

The Dennett case is barely disposed of, however, when another, and probably worse, phase of censorship threatens. Congress in its "infinite wisdom" has been engaged in serious debate over a book censorship clause in the tariff bill, and the Senate has adopted a proposal by Mr. Smoot, of which the Pittsburgh Press of March 23 has the following to say:

"There has been no public spectacle, for many years, as silly as that in the Senate of the United States when the question of customs censorship of books was debated and determined.

Ignorance and intolerance won, though these are forces which have no place in such a body.

Customs officials will continue to seize books in which they feel they have observed obscenity. They will assume, too, a new toil, and watch, now, for the taint of reason.

The Smoot censorship amendment finally adopted, though somewhat less severe than when it was first proposed, retains its most objectionable features.

It substitutes a Federal Court, with jury, for the Customs Court as a place of appeal from customs seizures, and it gives the Secretary of Treasury the right to admit 'classics' within his discretion, but in other respects it is more drastic than the present law.

Enforced literally, the law would cut us off from the ideas of the rest of the world, deprive us of important scientific information, and leave us without a basis for judging and evaluating ourselves and those about us. Enforced less literally it opens a new avenue of bootleg endeavor.

Sometime an adult majority in Congress will repeal this law."

The time of day I do not tell,
As some do, by the clock,
Or by the distant chiming bells
Set on some steeple rack,
But by the progress that I see
In what I have to do.
It's either Done O'clock to me,
Or only Half-past Through.
—John Kendrick Bangs.

Collateral Reading

WHAT RISK MOTHERHOOD

DOROTHY DUNBAR BROMLEY
in Harper's Magazine

(In this number of the Journal we are carrying an interesting group of original articles bearing upon the science of obstetrics: reviewing the unsatisfactory results of obstetric practice in the United States, submitting a special survey of maternal mortality in one section of New Jersey, recording the observations—over a 50-year period—of one of our most distinguished members and practitioners, and, presenting the suggestions and recommendations for improvement in practice by a leader among American teachers of the science and art of obstetrics. Most of you are aware of the fact that the medical profession is greatly disturbed over the deplorable state of obstetric practice, but some of you may not know that the laity is equally disturbed and that lay periodicals are also pouring out numerous articles of complaint and of criticism. As this seems an opportune time for doing so, we have selected the best of such articles that has fallen under our gaze and present an abstract from it to direct your attention to the public's—especially the woman's—point of view concerning this most important question, "the risks of motherhood".—EDITOR.)

"That a woman should jeopardize her life—or at least her health—when she gives birth to a child has long been accepted as one of the inexorable laws of nature. And so it happens that while science has been waging a winning fight against diseases such as typhoid fever, diphtheria, tuberculosis, and pneumonia, the great problem of maternal mortality has received comparatively little attention. Curiously enough, the lay public is not yet awake to the seriousness of the situation. Few people, for instance know that approximately 15,000 women die in this country from childbirth every year, or that the mortality rate which these figures represent is as high as it was in 1900. Statistics show, too, that childbirth constitutes a greater risk of death for women between the ages of 15 and 44 than any single disease or class of diseases, with the exception of tuberculosis; while the number of women whose health it destroys or impairs is incalculably large, according to the medical profession's own admission.

Most appalling of all is the fact that women in the United States apparently run a greater risk of death from childbirth than do the women of any other civilized country. For a number of years Chile held this dubious distinction, but since 1924 we have headed the list with 6.5 deaths of mothers per 1000 live births. That is to say, for every 1000 babies that are born alive, there are over 6 mothers who sacrifice their lives, as compared with 5.8

mothers in Scotland, 5.3 in Germany, 3.8 in England and Wales, 2.7 in Italy, an average of 2.6 in the Scandinavian countries, and only 2.3 in the Netherlands. * * * *

The theory that women of certain races are better adapted physiologically to bear children than are those of other races is still open to proof; but it would hardly seem to account for the fact that foreign groups settled in the United States have a generally higher maternal mortality rate than obtains in their countries of origin. Minnesota, for instance, with its large Scandinavian population, shows a rate of 4.4, as compared with an average of 2.6 in Denmark, Norway, and Sweden. In view of these facts, one is forced to conclude that there must be a radical difference in the type of obstetric care available to the women of the middle and lower classes in the United States as compared with that available to women in those countries where a smaller proportion die from childbirth. There is no doubt but that there are as excellent obstetricians here as in any country, but their services unfortunately are restricted to a favored few. Measures must be taken, then, to give a better grade of obstetric care to the general run of women. To what extent this task of reform devolves upon the medical profession, and the public health authorities is the question to be considered.

When a woman dies from childbirth the community usually sets down the tragedy to 'the hand of God' and lets it go at that. But the informed doctor knows that the majority of such deaths are attributable either to lack of care before birth or to faulty obstetric attention at the time of birth. For it is a statistical fact that 65% of all maternal deaths are due to septicemia (40%) and toxemia (25%)—both preventable causes.

Prior to the discovery of antiseptics, countless women died of puerperal septicemia—or 'childbed fever'—until in 1843, Dr. Oliver Wendell Holmes raised the cry that doctors themselves infected women in labor by carrying germs to them from other patients who were suffering from infectious diseases. He related scandalous instances of physicians who had a rapid succession of deaths from childbed fever, and he hotly declared that 'the existence of such a pestilence in the sphere of a single physician should be looked upon not as a misfortune but as a crime'. His paper caused much stir, but there were still many doctors who refused to admit the truth of his claims. A few years later, however, Semmelweis, of Vienna, arrived at similar conclusions and instituted the simple procedure of having physicians and midwives wash

their hands in chlorine water before attending a patient. Finally, with Lord Lister's introduction of antiseptics in 1865, puerperal septicemia was recognized as essentially a wound infection. It is still considered to be such, although cases have been known where the infection was thought to have originated in the diseased organs of the patient herself.

Where the patient's habits of hygiene are none too good, it is quite certain that delivery by instruments opens the door to septicemia—no matter how perfect the aseptic technic. This is thought to be the reason why the large maternity hospitals find a slightly higher incidence of septicemia in their ward than in their tenement service, which is limited to the simple cases not requiring operative interference; and also the reason why they get practically no septic cases among their private patients. It is true, too, that women living in the country are less frequently the victims of septicemia than women living in the towns and cities. Medical authorities are inclined to attribute the difference not only to the better sanitary conditions in rural districts, but to the fact that doctors are scarce and that, as a consequence, fewer instrumental deliveries are performed. In other words, a midwife or neighbor who waits to let nature take her course may do less harm than a careless, hasty doctor.

This preaching against operative obstetrics appears to the layman a very hopeful sign. For there is no doubt that America has gone 'operation mad', and in the field of obstetrics the craze has led to 'dangerous short-cuts which often mean disastrous results for both mother and child', in the opinion of more than a few leading authorities. The disastrous results—the stories of fatal hemorrhage or septicemia—never reach the ear of the public, although inklings may be gleaned from the medical journals, where one may read such statements as the following made by a Detroit doctor at a medical meeting not long ago: 'I have in my laboratory,' he said, '5 specimens of ruptured uterus and I firmly believe that these accidents resulted because the attending doctors were in too great a hurry.' Speaking in the same vein, Dr. Rudolph Holmes, of Chicago, blames the 'meddling obstetrics of the busy practitioner' for the continued high maternal mortality rate. Dr. George Osborne Polak, head of the Department of Obstetrics and Gynecology at Long Island College, decries the lack of conscience on the part of many doctors 'who call in a consultant at the last minute not to save the woman's life, but their own faces'.

Cesarean section as a routine method is

considered an even greater evil than the unwarranted use of instruments. Dr. Polak indignantly declares that 'this method is now being used for no other reason than that it is the quickest and most convenient way of getting the baby out of the uterus'. In many communities, unfortunately, there are more surgeons than there are obstetricians, so that when a general practitioner needs the help of a specialist he calls in a surgeon friend, who does a cesarean because he is unfamiliar with the conduct of labor. Dr. Franklin S. Newell, of Harvard, says that this condition exists in a considerable number of the surrounding towns and cities in his part of the country; and Dr. Charles L. Bonifield, of Cincinnati, makes the same observation. Their opinions, are borne out by a recent study of 100 deaths from cesarean section in Massachusetts, in which it was proved that in only 37 of the cases was the section performed because of obstructive labor. Careful obstetricians resort to cesarean section in case of a contracted or abnormally small pelvis and in certain other crises, and they always perform the operation if possible in the early stages of labor.

Next to septicemia the greatest risk which the childbearing woman runs is toxemia—a condition of faulty metabolism which is found to a greater or less degree in about 50% of all pregnancies—according to Dr. J. W. Williams, of Johns Hopkins. Here the science of obstetrics has made its greatest advance, for it has evolved a routine of prenatal consultations and urinalyses which will check toxemia and practically eliminate it as a serious complication or cause of death. Unfortunately, however, there are still a great many doctors of the old school who do not realize the imperative necessity of prenatal care, and even more women who are too ignorant or neglectful to report regularly to a clinic or doctor, while there are thousands of other women who are out of reach of such help.

* * * *

The medical profession in this country must answer the charge of not only having neglected to train its own rank and file in the science and art of obstetrics, but of having played dog in the manger so far as the midwife is concerned. Resenting her existence, and disapproving of her methods, the profession for a long time sought to exterminate her by ignoring her. And only within recent years have the leaders in the field of obstetrics taken the trouble to consider the midwife's potentialities for good as well as for evil.

In New Jersey, the State Board of Health

does a less intensive, although equally important, piece of work. In addition to requiring a diploma from a school of midwifery, the Board of Health maintains contact with every midwife practicing in the state, checking up on her methods and equipment and obliging her to attend conferences from time to time. Under this system, inaugurated by Dr. Julius Levy, the mortality among mothers attended by midwives dropped from 5.3 per 1000 live births in 1914 to 2.2 in 1921. It must be noted, however, that the midwives usually get simpler cases than do the hospitals—a commentary which applies also to the Philadelphia figures. Yet it would appear that the trained and supervised midwife fills a decided need in industrial centers, for the cities in New Jersey which lose the greatest number of mothers have the smallest proportion of midwives practicing. Trenton, for instance, with 29% of its deliveries in the hands of midwives, shows a mortality rate of 7.8 as against Perth Amboy, where 66% of all deliveries are performed by midwives; and the death rate from childbirth is only 1.4.

But even with an adequate number of maternity hospitals, thorough instruction in the medical schools, prenatal clinics, and supervised midwives for country districts, the problem will still not be solved in this country until the public itself changes its attitude toward the doctor who practices obstetrics.

The chief point at issue is the question of fees, a very sore point indeed. It is not surprising that the various magazine articles which appeared several years ago complaining of 'the high cost of bringing babies into the world' did nothing to clear the air. Doubtless there are specialists who charge exorbitant fees, just as there are in every branch of medicine. But, generally speaking, there appears no reason why the obstetrician should not charge at the same rate as does the surgeon, since his work is if anything more onerous and his postgraduate training just as expensive in time and money. As it is now, surgery offers so much greater rewards that there are 10 young doctors specializing in this branch of medicine, to 1 in obstetrics.

The general practitioner, for his part, is expected to give obstetric care at the same rate that he charges for his other services; and under these circumstances, Dr. John Whitridge Williams observes, 'he cannot reasonably be expected to give much better service than he is paid for'. And yet he must face the fact, Dr. George Gray Ward warns us, 'that the great bulk of obstetrics in this country will always be done by the general practitioner, and the measure of mortality and morbidity of the childbearing women of

the community will be in direct proportion to the sound obstetrics that he practices'.

Sooner or later the public will have to make it worth the general practitioner's while to take up obstetrics as his particular 'specialty', since there is no branch of medicine which is more vital to the welfare of the community, with the possible exception of pediatrics. But in order to make obstetrics his 'specialty' he must not only have had sufficient clinical training in prenatal, postnatal, and normal delivery work in medical school, but he must also, as the years go on, keep abreast of the new developments in obstetrics by attending short postgraduate courses. Obviously he will not be able to afford these academic excursions unless he receives higher fees for his obstetric work.

During the last 2 decades great efforts have been made to cut down infant mortality, and these efforts have been highly successful, except as regards the mortality during the first month of life. That remains high, as do still-births, for the reason that the infant's risk is the mother's risk, and babies will continue to die at birth, or soon after, so long as mothers are not given good obstetric care throughout pregnancy and at the time of delivery.

Husbands must wake up to the fact that childbearing is not a purely physiologic process and that the dividing line between normal and abnormal cases is hard to draw. Therefore, if they would safeguard the lives and the future health of their wives, they must be willing to pay for adequate obstetric care.

Communities must wake up to the fact that it is as much their civic duty to make available the best grade of maternity care to every woman as it is to protect their citizens from murder and mayhem in the streets. That so many thousands of women should continue to die and to be invalidated for life in this country which boasts of its scientific and humanitarian achievements is a disgrace."

Esthetics

FOR SAGES AND LOVERS ALIKE

(Reprinted from Kalends, Williams and Wilkins Co.)

About 320 years ago one of the mightiest intellects of all time, Francis Bacon, wrote: "God Almighty first planted a garden." Nearly 300 years later one of the world's greatest scientists, von Helmholtz, admitted that: "No great thought ever came to me at

my desk or out of the routine of the day's work; only when I was musing in the garden with nothing in particular in mind did my greatest conceptions come to me." If Bacon's and von Helmholtz's testimony be accepted, it may well be wondered how many others, contemplating the work of an Infinite hand, have been actuated to comparable results.

Why is this? Why is it that such stupendous minds *feel* the appeal of the garden? The reason is not far to seek nor hard to find, for does not the very soil of the garden hold within it the mystery of life? In the soil man begins and in it he ends! Who is there that can dispute it? Aside from the mystery of life are there any other mysteries in garden soils? Yes, wonderful ones! For archeologists of unimpeached veracity tell us stories which the dusts of the ages tell them, true ones, of the histories not only of nations but of entire civilizations long forgotten, and told by the dusts in a manner which seems to desire to obscure the ignoble endings of them all. Dusts—dirt, if you will—that eloquently speak and inform us that many of the smartest social flairs of today's ultra-modernism were old æons ago—the modernistic deification of sex as a minor but lurid example.

But the garden is not a sombre place for the serious thoughts alone of mankind. Such assumption easily can be disproved by the thousands of happy lovers who have quoted Tennyson and will continue to do so, unknowingly though it may be, by saying, "Come into the garden, Maud". And whether *her* name be Maud, or Eleanor, or Mary, or Hannah, the appeal and lure of the garden as a fitting place to tell *her* over and over again the old old story will ever be the same if true love exists. And the greatest mystery of it all is that *she* will not resent the story's repetition!

So, again, the question is asked why is it that scientists and lovers alike so often come to themselves in gardens? May it not be that *there* alone all of the riddles of life, which press down upon the brow of man, are more susceptible to solution, or seemingly so, than is found in many of the other devious pathways which promise so much but yield—nothing. There is no greater altar of supreme faith than that of the garden, for there it is that a man may if he will, *by taking thought*, see—God. In the garden it seems that man *feels* the Infinite; for in the quiet of a dusky eventide, or in the delicious calmness of a shimmering moonlight, a thinking man senses a *Something* that makes life worth all the trials, yearnings, and heart-throbbings demanded of him.

"And the Lord God planted a garden eastward in Eden; and there he put the man he had formed." So it is recorded in the eighth verse of the second chapter of Genesis. He who runs may read.

(How many of you, dignified, Chesterfieldian "doctors" remember the boyhood country days when the "sap began to run in the willows", in April, and with jack-knife in hand you made a whistle?—Ed.)

A WILLOW WHISTLE

Cloud-ships are riding the pearly billows
Of sky, and wind waves the plumes of willows.
Quick life tingling and bright sap flowing
Up to the sun and a new world growing!
A meadow lark spills his notes like dew
And pauses as if they were all too few
To express his rapture; a bob-o-link shakes
His bough of song and a splendor wakes
Across the air. Now, over the hill
Where willows dance and the grass is cool,
A willow whistle is clear and shrill,
Blown by a boy on his way to school.
Calling to dreams * * * how long ago!
And lips remember and shape to blow,
Tasting the tang of the tender bark
And the sweet white wood of the willow
... Hark!
How clear and bright are the echoes sped—
Calling to dreams ... how far ahead!

GLENN WARD DRESBACH.

Medical Ethics

PROGNOSIS

JOHN HAMMOND BRADSHAW, M.D., F.A.C.S.,
Orange, New Jersey

"A physician should give timely notice of dangerous manifestations of the disease to the friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should assure himself that the patient or his friends have such knowledge of the patient's condition as will serve the best interests of the patient and the family."

(SEC. 3, PRINCIPLES OF MEDICAL
ETHICS, A. M. A.)

One might almost thoughtlessly ask, whatsoever this has to do with ethics, why are we here told something that we already know? But many of our difficulties arise from neglecting things we already know. The trouble is that we should not be expected to have a medical knowledge of all things. When

it comes to prognosis, we are thought to have a special wire, long distance connection with the Almighty who imparts to us information about things unseen and about facts unknown, and even about future events! You will surely grant that it is an uncomfortable position.

A personal friend of the writer was once called in to see a burly Irishman suffering from an acute attack of appendicitis. As the patient had neglected to call a doctor until the appendix was "ripe", with septic symptoms hovering in the offing, the sufferer was told that an immediate operation should be performed. This brought down on the head of the attendant a volley of abuse; not only for himself but upon all surgeons "who always find more money than pus in the appendix". When the gust of oratory had quieted down enough so that the surgeon could get his own breath, he controlled his temper sufficiently to tell the ignorant orator that the whole matter was up to him, and that, if he preferred to die rather than have an operation, it was his own funeral, anyway. The doctor was at once told, as the patient's last shot, that he would get another physician who didn't so much love to cut. This last remark got under the doctor's hide and, losing his temper, he incautiously told the patient that he would then surely die.

About two months afterward this same surgeon ran into this interesting patient shovelling snow. The erstwhile patient put his thumb to his nose in a vulgar gesture.

It is the remembrance of instances such as this that makes the physician hesitate to "sell short" in his prognosis. It is only natural that he should try to play safe. It is quite true, unfortunately, that a reputation of being exact in prognosis does more to boost a young (or old) doctor along the primrose path of finance than almost anything else.

Years ago a patient of the writer had long and persistent headaches which were rebellious to all treatment. There were almost no other symptoms. From New York a noted specialist in diseases of the nervous system, being called to see the patient, at once made the diagnosis, as you will suspect, of tumor of the brain. The prognosis was death. The greatly distressed family besought the great man to tell them just how long their only son could live. It was then one day early in September when this consultation was held. The doctor, without a moment's hesitation, told them that when Christmas day arrived, their son would be in Heaven. The patient died December 24! To this day the

whole neighborhood talks about "that wonderful doctor"!

But there is another side to the picture, showing the physician in other and darker colors. A certain doctor who once lived not many miles from the writer, has now for many long years been gathered to his fathers. But, during his active days he had probably the most lucrative practice in all the vicinity. There was one disease that gave him his greatest reputation—pneumonia. The proportion of his pneumonia patients recovering was simply astounding. While the writer was losing approximately 22% (and thinking he was doing pretty well), almost every patient having pneumonia under the other doctor's care got well and sang loud and long his praises in the seats of the mighty. Now one day the writer was called to see (during the forced absence of the successful physician) one of his patients "who must be seen at once", as he was very low with the dreaded pneumonia. Two trained nurses were helping with their usual pretty ways to save the patient's life. The distracted wife met the writer at the door and caught him by the arm, exclaiming: "You must tell me that my poor husband will live!" I was ushered into a dark and stuffy sickroom, fully prepared, after seeing the numerous tanks of oxygen in the hallway, to find the patient quite cyanotic, if not in actual *articulo mortis*. But, believe it or not, the personal relief was great to find (after a most careful stethoscopic examination) only a mild bronchitis. Thereupon rose a nice problem of ethics! It is left to the reader to solve it.

Now, in prognosis, so many things must be taken into consideration. Idiosyncrasy, environment, heredity, even habit, which, if not known and carefully considered, will warp and distort the judgment. The doctor is not an oracle. It is but natural that he should want to play safe in giving his opinion. But there is one little (?) characteristic he should have, and that is *honesty*. He may make mistakes—he is but human. The physician, when he leaves his work at last and is called into the great hereafter, will be happy if he can say, as did William Osler when he left our shores for his new home in England:

"I have made mistakes, but they have been mistakes of the head and not of the heart. I can truly say, and I take upon myself to witness, that in my sojourn among you:

"I have loved no darkness,
Sophisticated no truth,
Nursed no delusion,
Allowed no fear."

Economics

REPORT ON ILLEGAL PRACTITIONERS IN NEW YORK

The new medical Practice Act of New York has now been in effect long enough to permit of some reasonable deductions as to its controlling influence upon irregular practitioners of medicine, and, on that score, we find the latest Annual Report of the Board of Examiners very interesting. In that report, the Secretary of the Board, D. Harold Rypins, (N. Y. Medical Week, 9:9, Jan. 11, 1930) says:

"The results in greater New York City for the year 1929 may be briefly tabulated as follows:

Complaints investigated	600
Violations stopped without prosecution	241
Referred to Grievance Committee.....	59
Prosecutions	99
Convictions	48
Acquittals and Dismissals	3
Dismissed and Licensed	2
Complaints withdrawn	4
Pending before magistrate or Special Sessions	42
	99
Total	600

Of particular interest in these cases is the fact that 6 defendants forfeited their bail and fled the state before trial. Only 1 was a second offender and he received a penitentiary sentence. A penitentiary sentence was also meted out to a licensed physiotherapist convicted of practicing medicine beyond the rights to which he was entitled by virtue of his license. In 1 case an attempt to secure a jury trial was denied; 4 appeals from convictions in the Courts of Special Sessions to the Appellate Division have been denied; 2 cases are pending before the higher courts on certificates of reasonable doubt, and in 1 case a suspended three-months penitentiary sentence has been made operative, following submission of evidence that the illegal practice had not been discontinued. In general, the courts have imposed substantial penitentiary sentences rather than fines, and with approval of the Department have suspended operation of a number of these sentences, pending absolute discontinuance of all forms of medical practice by the defendant.

These figures show excellent results, but they do not tell the whole story by any means. They indicate that once an offender against the Medical Practice Act is held by a magis-

trate in New York City the chances of his conviction by the Courts of Special Sessions are exceedingly high. The consistent vigor with which the Courts of Special Sessions have meted out proper punishment to these offenders has served notice to the public at large and to illegal practitioners in particular that both the State and the courts mean business in this matter, and that going against the law is a dangerous and losing game. It is hoped that as time goes on the magistrates, before whom the preliminary hearings are held, will develop an equally vigorous reaction to medical quackery.

Apart from results of the criminal prosecution, the best results are indicated in the almost complete disappearance of the illegal display of the title of "Dr." Licensed chiropractors and optometrists not entitled to use the title "Dr." have been very coöperative in changing their professional signs, and even those quacks and cultists who still persist in taking chances with the law rarely use the title "Dr." Since the title "Dr." indicates to the uninformed public the holding-out of a qualified practitioner of medicine, its discontinuance by those not so qualified is the greatest single contribution to the effectiveness of the Medical Practice Act in protecting the public from exploitation.

While it would be foolhardy to deny that there are still a goodly number of illegal practitioners of medicine in New York City, the falling away of unauthorized "Dr." signs and the very great difficulty which our inspectors experience in obtaining access to and treatment from these individuals, is a sure indication of their steady elimination. In most cases it is necessary for a prospective patient to come with the most *bona fide* recommendations, and not infrequently he must sign an affidavit that he will not testify in court, before he can receive treatment. The psychologic effect of these maneuvers upon the public is obvious and it is evident that most of these violators are attempting to survive on the diminishing remains of their old practice. The laws of economics and the psychology of fear are consistently operating to their ultimate disappearance.

A few cases have come to light in which illegal practitioners have been operating in partnership or under the protection of unsuccessful licensed practitioners. In such cases the unlicensed men have been prosecuted criminally and the licensed physicians have been referred to the Grievance Committee for disciplinary action. Space does not permit comment on the excellent work of the Grievance Committee in the discipline of li-

competent physicians and the adjudication of unwarranted claims against ethical practitioners. During the past year this Committee has heard 59 cases in greater New York City alone and its work in protecting both the interests of public health and of the licensed practitioner of medicine cannot be too highly evaluated."

In Lighter Vein

Give It a Name

Poor Golfer—"Well, how do you like my game?"
Caddy—"I suppose it's all right, but I still prefer golf."—Montreal Star.

Educating Ma

"Has your son's college education proved of any real value?"

"Yes, indeed, it's entirely cured his mother of bragging about him."—Pathfinder.

Friends of Silence

By means of a new local anesthetic, patients may listen-in to radio while undergoing a surgical operation. Some, however, firmly demand chloroform.—London Opinion.

Sweet Tooth

Tramp—"Have you a piece of cake, lady, to give a poor man who hasn't had a bite to eat for two days?"

Lady—"Cake? Isn't bread good enough for you?"

Tramp—"Ordinarily, yes, ma'am, but this is my birthday."—Pitt Panther.

Not a Matter of Lineage

Robinson detected a leakage in his whisky, which he connected with his new housekeeper.

"My former housekeeper," he said to her one day, "was a most trustworthy woman. You see that bottle——"

"I hope, sir," interrupted the woman, "you don't think I would stoop to touch it. I came from honest English parents, and——"

"I'm not grumbling at your English parents," commented Robinson; "it's your Scotch extraction of which I complain!"—London Opinion.

Winged Alligator

A mosquito has 22 teeth, all of which may be seen through a microscope, we are told, and all felt through a silk stocking, as any girl can tell you.—Albany Knickerbocker Press.

Caller—"How are the folks?"

Eddie — "Father has got the rheumatism; mother is in bed with malaria; the children have got the mumps; the dog's got the distemper, and the parrot don't talk any more."

"Good gracious! the whole menagerie is down except you!"

Stylish Extravagance

Jones—"So your mother-in-law died of an operation?"

Smith—"Yeh, and I understand now she could just as well died without it."—Pathfinder.

Lighthouse Observations

REMOVAL OF TONSILS

At first glance, the title of these remarks may appear trite and arouse the thought that there can be little necessity for consideration of such a topic at the present time. A little further thought may, however, lead you to realize that this subject is very much "alive" today, in spite of all that has been written and spoken thereon. So long as deaths continue to attend performance of an operation that should be without fatalities; so long as physicians and surgeons dispute about the necessity for so many tonsillectomies; so long as even the operative technic remains subject to argument; the subject of discussion can scarcely be considered as settled.

An editorial in American Medicine, September 1929, tells us this subject formed one of the interesting debated problems at the last Annual Meeting of the British Medical Association:

"Another subject of the first importance in every country discussed at the British Medical Association meeting was the wholesale removal of tonsils and adenoids, a practice which has been general here and in Britain for many years. It has been referred to more than once as the massacre of the innocents and it may be said that many medical men are beginning to doubt the wisdom of a procedure which seems to have become almost an article of faith among those in authority at schools. At the meeting at Manchester the unusual course was taken of passing a resolution affirming that operations for tonsils and adenoids should not be carried out as an out-patient operation and that provision should be made by hospitals and local authorities for children to be kept in bed under observation for at least 48 hours after such operations. One doctor stated that many subsequent troubles dated from operations on tonsils and adenoids. In country districts children were often sent home after these operations, perhaps for miles in a carrier's cart. Another medical man said that the question was often put whether these common operations were really necessary. It had even been suggested that though the guillotine might have been given by God, it was Satan who perpetuated its use. Another speaker asked, paraphrasing Gilbert and Sullivan, why

Every little boy and girl
Born into this world alive
Is doomed to lose its adenoids
Before it reaches five.

The consensus of opinion seemed to be that the operations for the removal of tonsils and adenoids were too wholesale, radical and indiscriminate. Can the same thing be said of this country?"

The above quoted editorial is not presented in order to append our approval, save in some portions; it is given rather that its spirit may be criticized. Apparently that editor is strongly biased in the matter, and holds the belief that far too many tonsillectomies are being performed. Possibly we are radical in the other direction, but certainly we do not believe the oft repeated statement that removal of tonsils is performed on too wholesale a scale. We can join with him in denunciation of much of the tonsil operative work, if he wants to put the blame for bad work where it belongs—and that is upon the operator, not the operation.

The term "massacre of the innocents" as ap-

plied to tonsil removal is generally used in a wrong sense. Only rarely, if ever, does an innocent tonsil come to operation. A great many persons innocently carrying diseased tonsils escape operation; to their own detriment. Many innocent persons with bad tonsils become victims of operations because, in their innocence, they make poor choice of a surgeon. There is such a thing as may be called "massacre" of the tonsil, sometimes of the patient bearing the tonsil, but the "massacre" is not attributable to tonsillectomy but to the incompetence of the operator. Hundreds and hundreds of physicians and alleged surgeons are attempting to perform tonsillectomies, who have not the slightest claim to *knowledge or skill* in that special field of surgery. Their work is little less than butchery, and their percentage of operative mortalities—quite aside from the butchered throats of their surviving patients, horrible as are those results—would be startling if they could be made known. That does constitute "massacre", and it is high time such procedures were banned.

It is not fair, however, to speak satirically of school authorities who recommend proper service to pupils who need treatment of tonsillar and adenoidal conditions. School teachers and officers know from observation that of all the medical service rendered to school children no other one thing has given 5% of the benefit that has been conferred by removal of tonsils and adenoids. The sad feature, as seen by school authorities, is that in the matter of tonsillectomy the profession as a whole is woefully behind the standards of its leaders and is nearer a menace than a blessing to the children.

Tonsillectomy, as properly described, is one of the most perfect, most scientifically developed operations in the surgical category. But, its proper performance requires knowledge and skill. To the properly educated and capable operator it is a simple and easy accomplishment. To the tyro in that field, who does not know the anatomy of neighboring parts, or who is clumsy or unskilful, it is a difficult procedure fraught with grave danger to the innocent and trustful victim of his daring.

We endorse emphatically that portion of the article quoted which advocates at least 48 hours in bed after tonsillectomy, and which ascribes many bad after-effects and some fatalities to sending such surgical patients out immediately upon rough journeys to distant homes. There have been many deaths caused by neglect or improper after-care of tonsil patients.

"One doctor stated that many subsequent troubles dated from operations on tonsils and adenoids." We are glad he is not our doctor, if that is an example of his reasoning; for his logic is comparable to the attribution of all after occurring events to "the big wind in Ireland" or to the "World War". We have seen a great, great many tonsil operations and nearly as many removed tonsils. We have yet to see a "good" tonsil outside the throat: and we have yet to observe any evil consequence of tonsil removal that was not honestly attributable to bad surgical management rather than to the operation that was intended.

Just let's recognize the very important fact that tonsillectomy is a *major* operation, requiring knowledge and skill of high degree, and that its attempted performance by physicians or surgeons not especially trained in rhinolaryngology should be *condemned*; and when we shall have put that

doctrine into effect we shall hear no more slurs upon one of the best health preserving operations, no more nasty mutilations and needless deaths, and much more about the benefits resulting from tonsillectomies.

School Health Department

SOME REASONS FAVORING ADMINISTRATION OF THE SCHOOL HEALTH SERVICE BY THE SCHOOL AUTHORITIES

ALLEN G. IRELAND, M.D.,

Director of Physical and Health Education,
State Department of Public Instruction,
Trenton, N. J.

(1) Because the school has jurisdiction over the child while at school.

(2) Because of the close relationship between the school and the home.

(3) Because outside of cities the board of health is usually composed of laymen, while there is always a trained person at the head of the school system. The efficiency of any system of health education is determined largely by the efficiency of its administration. There should be no confusion or dual responsibility in matters pertaining to it. Divided responsibility of administration frequently leads to confusion, invites misunderstandings, and materially lessens efficiency.

(4) Because it is a function of the school to teach health, and health work should be a unit instead of being divided into sections: (a) Fundamentally and logically an educational problem of training teachers and pupils in applied hygiene and in practical sanitation. (b) Board of health is not in a position to make adjustments of educational processes necessary to meet the health needs of the child. (c) The task of the school is to so direct the educational processes that the child's native heritage of vigor and health may be fully attained and his hereditary deficiencies corrected. This is an educational problem; also an administration problem of the school. (d) It is a part of the process of education aiming toward the physical, mental, and moral development of normal boys and girls who will become physically efficient members of adult society. (e) The instruction in hygiene, guiding of correct health habits, detection and correction of physical defects, control of communicable disease, and school sanitation, are closely related and should be articulated in a comprehensive program of activity.

(5) Because the machinery of education is established and in operation and furnishing the logical avenue of approach to the child: (a) It involves school policy, school organization, and school administration. It is but an integral part of any modern educational system in which many activities must of necessity unite in its proper organization and efficient administration. Every unit of administration must articulate with every other educational unit in the completed program. It must of necessity be administered as a part of and not as apart from the educational system in which it operates. (b) The work of doctors and nurses resembles the work of teachers rather than that of inspectors. Any health program which involves teacher, nurse and doctor must show unity of thought and action. (c) It is a program of keeping well and not one of getting well. It deals

with mental or physical health or growth rather than with disease.

(6) Because there is more friendly coöperation if doctors and nurses are part of the school system: (a) Members involved will better coöperate by reason of one source of authority. (b) When administered by outside authorities the interest of the teacher is not so easily enlisted.

(7) Because of the close relation of physical health to educational efficiency. Good health is a means to an end and not an end in itself. This has immediate application to the schools in that we need to build for increased capability in school work as well as for the future. We can influence but not control activities away from the school. The formative work must be done while the pupils are under public control.

Communications

HOSPITAL DAY OBSERVANCE

Hospitals throughout the United States and Canada are beginning plans for the tenth observance of National Hospital Day, May 12, according to information reaching Dr. J. R. Morrow, superintendent Bergen Pines, Oradell, N. J., chairman of the National Hospital Day Committee of the American Hospital Association.

While some institutions which have observed the day since its start are seeking new ideas, the majority of the hospitals will have "open house", reunion of babies, inspection of departments and other features which met with such success in previous years. Some of them undoubtedly have had the same experience as a hospital which decided to omit its "baby show" one year and found that the mothers, who had gathered in larger numbers than on the previous occasion, were greatly disappointed.

That more small hospitals will observe May 12 this year than in the past is the belief of some of the members of the National Committee, owing to the tribute paid to small hospitals in rural sections by President Hoover in his endorsement of National Hospital Day.

The national committee is in touch with large manufacturers and others using nation-wide radio hookups and hopes to extend the radio publicity given National Hospital Day last year. Many hospitals also are making arrangements for individual radio programs, as in the past.

Most of the hospitals conducting schools of nursing which will have a National Hospital Day program will give considerable attention to a presentation of facts about nursing education and nursing service, keeping in mind that May 12 is the anniversary of the birth of Florence Nightingale.

EIGHTIETH BIRTHDAY OF DR. WILLIAM H. WELCH—APRIL 8, 1930

Biographic Sketch by the Celebration Committee

Dr. William Henry Welch is admired because of his distinguished leadership in revolutionizing American medical education and because he has probably done more than any other man, living or dead, to inspire American public health measures. He is loved because of his radiant nature,

his constant readiness to serve others, and his charming habit of under-rating his own achievements. No one could be less concerned than Dr. Welch over the ironical fact that, eminent as he is, his fame has never reached the multitudes. With no urge of showmanship, no striving for popularity in his numerous writings, and nothing sensational in the manner of his life and work, Dr. Welch has not frequently been named in headlines of the nation's press, yet he remains virtually unknown to millions who have benefited from his contributions.

At the Johns Hopkins University, in Baltimore, where this "dean of American medicine" has taught for 45 years, he is lovingly known as "popsy". There everyone knows this kindly gentleman with twinkling eyes, white moustache and Vandyke beard, squared jaws, and head held characteristically to one side. He is somewhat stocky in build, and he walks with the vigor of a man a generation younger.

Today he is the Professor of the History of Medicine at Johns Hopkins, having been appointed to this chair in 1926 upon his resignation from the directorship of the Johns Hopkins School of Hygiene and Public Health, the first school of public health in the world. When he was selected to organize this school, in 1916, he had been Professor of Pathology for more than 30 years in the medical faculty of which he was the original member.

William Henry Welch was born in Norfolk, Connecticut, April 8, 1850. His father was a practicing physician, as were also 4 uncles, a grandfather and a great-grandfather. He prepared for college at a boarding school at Winchester Centre, and entered Yale at the age of 16. In 1870 he received the degree of Bachelor of Arts, the third man in a class of 111. The mind of the youthful graduate was on the classics, and he spent a year teaching Greek and Latin at a school in Norwich, New York. He was born for medicine, however, and in the autumn of 1871 matriculated in the College of Physicians and Surgeons, New York City. Hardly had his studies begun when he perceived the need of a better scientific foundation, and he returned to Yale to study chemistry in the Sheffield Scientific School, and to take courses also at the Yale Medical School. There he formed an enduring friendship with T. Mitchell Prudden, and these men in their later careers exerted a joint influence in developing the new science of pathology in America.

After one year of graduate work at Yale, Welch entered the College of Physicians and Surgeons. At this institution the didactic lecture was the chief means of instruction and, with the exception of the courses in anatomy, there was little opportunity for practical objective study. Welch, however, worked eagerly in the dissecting room, and very soon became an assistant to the professor of anatomy. In a student competition he was awarded the prize of a microscope, a comparatively rare instrument in those days, and with that microscope he began his notable career in the new pathology, the scientific study of diseases.

Although Welch still thought that his life work was to be that of a practicing physician, he sought a more complete medical education abroad. In the early summer of 1876 he arrived in Strassburg, and during the summer semester studied normal histology and physiologic chemistry, besides attending autopsies; his teachers were Waldeyer, Hoppe-Seyler, Baumann, and von Recklinghausen.

After this summer work he went to Leipzig, where he studied pathologic anatomy, under Wag-

ner and worked in Ludwig's laboratory, where he revealed special aptitude for microscopic investigation. Thence to Breslau for the summer session to study under Cohnheim, who was then writing his text-book on general pathology. The young American student was assigned a problem involving special study of the heart, and was so successful that his findings were embodied in the professor's new book. Welch was now in the midst of important scientific events that established the germ theory of disease. In Cohnheim's laboratory, for example, he witnessed the experiments of Robert Koch, who had come there to demonstrate that the dreaded disease anthrax was caused by a bacillus. Koch's discovery was the first conclusive proof that bacteria may cause disease.

Incidentally one of Welch's fellow students in Breslau was Salomonsen, who afterward, as the celebrated professor of pathology at Copenhagen, declared that Welch was one of the 2 men who had most influenced his life.

After the summer studies with Cohnheim were over, Welch went to Vienna, then the Mecca for foreign medical students. Here he studied pathology under Chiari, neurology and psychiatry under Meynert, and took courses on the skin under Hebra. He remained in Vienna several months and then went to Strassburg again to study pathologic anatomy under von Recklinghausen. whose theories, as Welch knew, were in many cases contrary to those of his other teachers in Europe. This first European study tour of Welch included a visit to many of the hospitals in Paris and a short stay in London, where he heard Lister lecture at King's College Hospital.

Returning to New York in the spring of 1878, he began earning an income from the practice of medicine and from tutoring candidates for hospital internship, or appointments to the medical services of the Army and Navy. His major bent, however, was to teach pathology, and he was destined to play the principal rôle in establishing the new methods and bringing the new learning to America.

Within a few weeks after his return from Europe he was invited to become lecturer on pathology at the College of Physicians and Surgeons, but he declined with characteristic decision because the offer brought him no opportunity to set up the laboratory which he considered absolutely essential.

Within the next half dozen years Welch, through his experimental and inspiring methods of teaching at the Bellevue College, attained a high position in the medical profession of New York. Meanwhile, events were in the making in Baltimore which were destined to give Welch leadership in the revolutionizing of medical education in America. President Gilman of Johns Hopkins University inquired in Europe for a scientist to guide the new medical school of the University, which was then being established. He was advised by eminent European professors that the ideal man for the task was an American by the name of William H. Welch. As a result, Welch was called to the chair of pathology at the University and to the position of pathologist to Johns Hopkins Hospital, early in 1884. The new professor immediately decided to prepare himself by further study in Europe.

Welch began his work in Baltimore in the autumn of 1885. Although the construction of the medical school was delayed, the future dean made immediate advance in developing a new science of pathology wherein all the various branches of

the subject were correlated so as to bring all available knowledge to bear on the study of diseases. He was the principal adviser in the early development of the Johns Hopkins Hospital and in the selection of the other 3 original members of the staff—Osler, Halsted, and Kelly. When the Johns Hopkins Medical School was opened, in 1893, Welch was naturally made Dean, and he held this post until 1898, while still performing his other duties as professor and as pathologist to the Hospital.

The men who studied under Dr. Welch caught the zest of his personality and soon disseminated his methods. A formidable company of them have gone to other institutions to teach, and several of these have become deans of medical schools. In the realm of public health, hundreds of Welch's students have gone out to campaign for such reforms as better sewer systems, filtration systems for purifying water, and means to control the handling of milk, to mention only a few measures necessary to prevent the spread of disease.

Welch was president of the Maryland State Board of Health for 24 years, and is credited with being the chief influence in bringing about modern sanitary conditions in the city of Baltimore. His advice has been sought by several Presidents of the United States, by Senators and Members of Congress, and by many others in public positions. In this way he has been a strong factor in the enactment of laws necessary for the success of preventive medicine and public health. It was through his advice that the Yellow Fever Commission of the United States Army was created, which accomplished discovery of the rôle of the mosquito in the spread of yellow fever.

In July, 1917, Welch entered the Medical Reserve Corps of the United States Army, with the rank of Major. He was a Colonel when discharged from active duty on December 31, 1918, and was made Brigadier-General in the Officers Reserve Corps on December 23, 1921.

Welch's war service necessarily interfered with his duties as Director of the Johns Hopkins School of Hygiene and Public Health, to which he had been appointed in 1916. This school, the first of its kind in the world, was opened for students in 1918. It was dedicated, in its own building, in October 1926. Shortly thereafter Dr. Welch resigned the directorship, being succeeded by Dr. William H. Howell, who had been associated with him many years.

At the age of 76, Dr. Welch might well have taken rest from his pioneering, but instead of that he accepted the position of Professor of the History of Medicine, and undertook to establish the Johns Hopkins Institute of the History of Medicine. With characteristic determination, he went abroad, in 1927, for new material, this time to study a similar institute at Leipzig and to buy books in Germany, France, Italy and England. On this journey he also served as a member of a committee to inspect the control of malaria in Italy. When the Medical Library building of Johns Hopkins University was dedicated on October 17 and 18, 1929, it was designated the "William H. Welch Medical Library". The dedication exercises attracted leading medical men from abroad as well as from all over the United States, a tremendous tribute to Dr. Welch's personal influence and achievements.

An example of how the eminent doctor reacts to praise is furnished by his remarks at the Fortieth Reunion, in 1910, of the Class of 1870 of Yale. Welch said to his classmates: "Now you have been much too generous in your estimate of

the little I have been able to do. It is an estimate due to your friendship. The explanation of whatever success I may have attained is simple enough. It is simply because I had the opportunity. There was a desire for a broader medical education and I had the good fortune to have unusually capable men coming to work with me."

Welch has himself participated in many celebrations at educational institutions, sometimes traveling far in order to do so. Thus in 1921 he went to China to attend the formal opening of the Peking Union Medical College. In the spring of 1928 he attended the Harvey Tercentenary Celebration, in London, under the auspices of the Royal College of Physicians, and spoke in behalf of all American medical institutions.

Dr. Welch is at present the Chairman of the Advisory Council of the Milbank Fund, and the President of the Board of Directors of the Rockefeller Institute for Medical Research. He is a member of numerous scientific societies and associations in many countries, and has received honorary degrees from more than a dozen universities and colleges.

NEW JERSEY STATE NURSES CONVENTION

The annual State Convention of the New Jersey Nurses will be held at the Winfield Scott Hotel, Elizabeth, April 10, 11, 12. The League of Nursing Education will conduct its business session Thursday morning and a program in the afternoon to be followed by "tea".

Friday will be devoted to business of the Nurses Association and discussion of "registries", from the point of view of the patient, the nurse and the registry. At night a "banquet" will be held under the auspices of the New Jersey Organization for Public Health Nursing. Saturday the public health nurses will have their business meeting.

The Northern New Jersey Federation of Visiting Nurse Associations is meeting in conjunction with the New Jersey Organization for Public Health Nursing.

DOCTORING IN RUSSIA

(Editorial, Charleston Evening Post, Feb. 21, 1930, picked up by Dr. W. K. Campbell while making a winter tour of the southern states.)

Only "state doctors" will be allowed in Soviet Russia henceforward and there is new cause for amusement at the expense of the Russians on the part of superior peoples, such as Americans, who think a better way is to furnish state doctors to everybody who wants to use them, rich or poor, but still let the benighted person who wants to throw away his money send for a private practitioner and pay him. The Russians are going to give the doctors a special privilege to compensate them for becoming state servants and giving up their private fees and perquisites. The Americans give their physicians the special privilege of donating free services to the institutions that compete with them for business. In Russia all workers get free medical treatment and all non-workers pay fees to the state. In America Mr. Jones pays his doctor bills and also pays taxes to support the clinic at which his prosperous but doctorless neighbor, Mr. Smith, gets free treatment for himself and family. One has only to consider the virtues of the superior American way of doing things to see the absurdity of the Russians.

Public Relations

DOCTOR FROZEN DEAD ON WAY TO HELP MAN

(Newark Evening News, Jan. 23, 1930.)

Stroudsburg, Pa. (U.P.)—Another of those epics in the life of the country doctor was told today after the death of Dr. George S. Travis.

Dr. Travis was called to minister to the injuries of James Snyder, who was accidentally wounded while hunting yesterday. Setting forth in his automobile to Shawnee, where the wounded man lay, Dr. Travis encountered a snowstorm which caused his automobile to stall when about a mile from Snyder.

Failing to get the automobile started, the physician attempted to complete his journey afoot. He was overcome by cold and fatigue, however, and his body later was found about 500 yards from his stalled car.

WOULD REVISE HEALTH LAWS

(Newark Evening News, Jan. 25, 1930.)

Trenton—Describing the public health law of New Jersey as a "hodge podge of contradictions", the National Institute of Public Administration recommends a complete revision of health statutes and sweeping changes in the set-up of the department. The original act was passed 42 years ago, since which time it has been amended piecemeal, but, according to the institute, not modernized to make it effective.

Before entering into its criticism of the health system, the report says that notwithstanding handicaps of administration and organization the State Health Department is rendering a quantity and quality of service entitling it to much greater financial support than it has had.

The institute found that the type of organization tended to diffusion of responsibility in technical activities, resulting in over-emphasis of some features of work at the expense of more important essentials. The distribution of health functions among 10 bureaus is called inconsistent with economy or efficiency. The institute would reduce the number of bureaus to 7. The report says not enough emphasis has been placed on the development, through state advice and supervision of strong, self-sufficient local health services.

MAJOR CHANGES URGED

Instead of the present health board, the institute recommends an advisory health council, leaving the administrative work to the health director. It says a ridiculous situation was created by the board in making the chief of the engineering bureau directly responsible to the board, instead of to the director.

Exception is also taken to the method of assigning one member of the board to supervise one or more bureaus. This, says the report, makes it possible for an employee to "short circuit" the director by appealing directly to a board member. A citizens' board of health meeting only occasionally is declared generally to be "a weak instrument for administration".

The institute contends that too much attention is devoted to child hygiene and the prevention of venereal diseases while other communicable diseases, equally dangerous to child life, are slighted.

Against these other communicable diseases the report says the public is incapable of protecting itself.

Supporting its argument for preventive work, the report says an expenditure of \$100,000 more for that purpose doubtless would return 10 times that amount in the saving of preventable illness.

To carry out a state-wide program for raising the standards of local health work, the institute advocates some plan of district health supervision by full-time, well-trained and experienced medical officers of the state department.

Considering some special problems the institute recommends removal of the limitations on the Health Department's jurisdiction over water supplies and sewage disposal. It says:

CONTROL OF POLLUTION MATTERS

"The pollution of water supplies in the Passaic Valley is a matter of utmost importance in the health protection of the public. We feel that guarantees of health protection against such pollution can be afforded better at the hands of the recognized health agency of the state than at the hands of any other body. Furthermore, the State Health Department, acting purely on grounds of health protection, is much more likely to secure community coöperation, and is more capable of obtaining the support of the courts in any action it may take to prevent diseases."

The institute warns against complying with the demands of dairy interests throughout the state that enforcement of milk standards and grades be transferred from the jurisdiction of the Health Department to that of the State Board of Agriculture. The dairy campaign would have the Legislature establish the grades of milk by statute. This, the report says, should be resisted by all who desire full protection of the milk supply. Experience of other states, it is added, indicates that the proposed change would result in lowering health standards.

DOCTORS PROTEST DRY REGULATIONS

(N. Y. Times, Jan. 28, 1930.)

A resolution of protest "against those portions of the prohibition law which deprive the citizen of his age old right to privacy regarding his diseases and ailments" was adopted last night at a meeting of the Medical Society of the County of New York in Hosack Hall, Fifth Avenue at 103rd Street. The resolution, which objects to the prohibition regulations which require a physician to state the diagnosis of the ailment of his patient and to submit for inspection the stub of every prescription he writes for alcohol, was adopted without opposition.

The resolution as adopted follows:

"Whereas the confessions of the penitent to his priest, the communications of the client to his counsel and the confidences of the patient to his physician have been held inviolate from remote ages and have been jealously guarded by the courts; and

"Whereas the regulations of the Volstead act for the enforcement of the Eighteenth Amendment require physicians to state the diagnosis of the disease or ailment of the patient on the stub of every prescription they write for alcohol; and

"Whereas the stub of all such prescriptions must be surrendered to prohibition commissioners

for inspection by them and their clerks; now, therefore, be it

"Resolved, That the Medical Society of the County of New York hereby voices its protest against those portions of the prohibition law which deprive the citizen of his age-old right of privacy regarding his diseases and ailments and which compel the physician to betray the confidential communications of his patient."

The resolution was introduced at the December meeting of the society by Dr. Warren Colman.

Dr. Iago Galdston, executive secretary of the society, explained that the medical profession has "smarted under the prohibition regulations as an invasion of privacy" since their promulgation. He said that the regulations were regarded not only as a violation of principles which always have governed the confidential relations between physician and patient, but as endangering a privacy which has been closed even to the scrutiny of the courts except under extraordinary circumstances.

Dr. Galdston pointed out also that such a rule "opens a wide door to blackmail", since the record book of alcohol prescriptions is always open to inspection by prohibition agents.

THE FAMILY DOCTOR'S FUTURE

(Editorial from World's Work, March 1930.)

Medical associations in various sections of the country are now conducting a campaign in favor of periodic health examinations. The good sense of such examinations is self-evident. There are thousands of cases of serious diseases which might have been averted by prompt action. There are thousands of dangerous tendencies which can be corrected if they are taken care of in their early stages. The campaign which these medical associations are now waging deserves wide public interest and support.

One possible by-product of the campaign is perhaps of special interest. If it succeeds, the campaign can scarcely fail to change the status of the old-fashioned family doctor. For a score of years, as specialization in medicine has gone steadily forward, the family doctor has been losing ground. Experts on ear trouble, experts on heart trouble, experts on back trouble, experts on the thousand and one maladies which can overtake the human constitution have been encroaching on his practice.

It is obvious that should the present campaign succeed, and should the good sense of periodic health examinations twice a year really impress itself upon the public, a new field would be opened to the general practitioner—a field of preventive medicine, in which the general practitioner would find work to keep him busy and a service of great value to perform.

This fact is recognized by the medical associations which have the present campaign in hand. Dr. Galdston, secretary of the Greater New York Committee on Health Examinations, says, in fact, that the new campaign is "the first practical step which organized medicine has taken in an effort to save the general practitioner from extinction and change him from an emergency doctor into a health counselor."

The new campaign deserves to succeed, not only because it will avert many cases of illness which are preventable but because it may come to the rescue of that valuable and often lovable figure, the old-time family doctor.

Current Events

MINUTES OF THE WELFARE COMMITTEE MEETING

Trenton, March 2, 1930.

Pursuant to a call regularly issued under instructions of the Chairman, a special meeting of the Welfare Committee of the Medical Society of New Jersey was held at the Stacy-Trent Hotel, Trenton, Sunday, March 2, at 3 p. m.

The Chairman not having arrived, the meeting was called to order by the Executive Secretary, and upon motion of Dr. Morrison, Dr. Conaway was elected Chairman pro tem.

Upon roll call, the following responded: Drs. Clayton, Conaway, Dandois, Davis, Ely, Emerson, Green, D. L. Haggerty, Hunter, Lee, Londrigan, McBride, McMahon, Morrill, Morrison, Remer, Ryan, Schauflier, Schlichter, Schureman, Sewall and Sherman: Drs. Sommer and Mecray were present by invitation: Dr. Kelley, of the State Board of Examiners, was also in attendance. Dr. Lippincott arrived later. Excuses were received from Drs. Barkhorn, Bloom, Donohoe, John Hagerty and Larkey.

The Executive Secretary reported:

(1) Letters written to all members of the legislature, explaining the reasons why the medical profession favors or opposes certain pending acts of legislation.

(a) The bills approved being A. 1, 3, 202, 284, and S. 117 and 207.

(b) The bills opposed—A. 85, 86, 93, 160, 161, 218, 288, 343 and S. 42 and 61.

(2) A conference having been granted those osteopaths who are favoring A. 161, the Secretary had just come from a meeting with Dr. Schleusner, of Paterson, where that bill was discussed, and the osteopaths were advised that the Welfare Committee would oppose passage of any such legislation.

(3) The special committee of which Dr. Davis is chairman—for consultation with the group of osteopaths sponsoring A. 218—and the special committee of which Dr. Morrison is Chairman—for conference with the chiroprodists—will present their reports this afternoon.

(4) Upon invitation of Dr. Lippincott, Dr. Marcus W. Newcomb, Assemblyman from Burlington County, is present to advise the committee as to the present status of all these bills in the legislature.

(5) Since the last meeting, the Gilbert Acceptance Corporation has had further correspondence with the Chairman of the Welfare Committee and presented a special request for a hearing at this meeting today. We deemed it unwise and unnecessary to grant that request, as such a conference would probably only result in the loss of much time to the members of this committee, but we do think it politic to recommend that a special subcommittee be appointed to consider whatever proposition that corporation desires to submit to the medical profession.

Chairman Conaway: The Secretary's report is before you and as there is but one subject outside of legislative matters, it might be well to dispose of that first.

Dr. Morrison: I move the appointment of a spe-

cial committee to consider the Gilbert Acceptance Corporation matter.

This motion was seconded and adopted.

Chairman Conaway: Dr. Lippincott having arrived, I am very glad to turn over the seat of honor to him.

Dr. Lippincott: I will appoint for membership on that special committee Drs. E. S. Sherman, Chairman: Linn Emerson and Lancelot Ely.

We shall be glad now to hear from Dr. Newcomb regarding legislative matters.

Dr. Newcomb reported, in brief, that all of the objectionable medical legislation submitted had been disposed of by the "steering committee" of the General Assembly, but that there are a few matters that may require some follow-up action, as follows:

Senator Yates should be communicated with, regarding A. 160 and 161. The committee members from Passaic County promised to attend to this. A. 214 is apparently a bill designed to confer special favors upon a nephew of Mayor Ruffu, of Atlantic City, and special effort should be made to defeat that bill. Assembly Joint Resolution No. 3 is a vicious measure in that it would tend to destroy what good work has been accomplished in the testing of cattle for tuberculosis. It was introduced by the Assemblyman from Sussex County and he should be advised that the medical profession is opposed to its enactment.

Dr. Newcomb directed special attention to A. 93, the surgical bill, and expressed the opinion that further effort should be made to ascertain who sponsors the bill and, if it be found that it emanated from a member of the medical profession, measures should be taken to deal summarily with him for taking such action without having previously conferred with his associates.

Dr. Londrigan called attention to S. 76, an educational bill, which contains one sentence that might be misconstrued so as to allow the appointment of unfit persons for school medical examinations.

Dr. Newcomb suggested that this objection could be met by striking out the words "and other persons" in the paragraph under consideration, and advised that this suggestion be presented to Senator McAllister.

Dr. Sewall promised to confer with Senator McAllister immediately.

Dr. Davis, Chairman of the special committee for conference with the second group of osteopaths, stated that a report seemed scarcely necessary if that bill (A. 218) is already slated for defeat. His committee had found the osteopaths willing to accept an amendment to their bill, if the committee would formulate a definition satisfactorily separating minor from major surgery.

Drs. Morrison, Kelley, Lee, Ely and McBride all pointed out the futility of such an effort, and the existence of many other defects in that bill which would prevent the medical profession from accepting it even in amended form.

Dr. Morrison reported that his committee had come to an agreement with the chiroprodists regarding the phraseology in A. 85, but that no further consideration of the matter seemed advisable in view of Dr. Newcomb's report.

Upon motion of Dr. Conaway, a special vote of thanks was extended to Assemblyman Newcomb for his services and his report to the Welfare Committee.

Dr. Kelley reported that the State Homeopathic Society had communicated with him, expressing a desire to cooperate with the Welfare Committee in its opposition to the surgical bill, and that the

Assistant Attorney General of New Jersey had likewise offered his services in dealing with some of the pending medical legislation.

Upon motion of Dr. Morrison, the Chairman of the Welfare Committee was requested to write to Assistant Attorney General and to the proper representative of the Homeopathic Society, expressing thanks for their proffered aid.

The meeting then adjourned.

Henry O. Reik, M.D.,
Secretary

TRISTATE MEDICAL CONFERENCE

The fourteenth regular session of the Tristate Medical Conference was held at the Hotel Pennsylvania, New York City, Saturday, February 8, 1930, and was called to order at 10 a. m. by Dr. William H. Ross, Brentwood, Long Island, President-Elect of the New York State Medical Society. Those present at the meeting were:

New York—William H. Ross, D. S. Dougherty, Frank Overton, Joseph S. Lawrence, and George M. Fisher.

Pennsylvania—William T. Sharpless, Walter F. Donaldson, Frank C. Hammond, and Arthur C. Morgan.

New Jersey—Andrew F. McBride, George N. J. Sommer, J. B. Morrison, John F. Hagerty, Mrs. E. C. Taneyhill, and Henry O. Reik.

A paper prepared by Dr. James N. Vander Veer, President of the New York State Medical Society, was read by Joseph S. Lawrence in the absence of Dr. Vander Veer, who was detained at home on account of illness.

How Can the Medical Profession, Through Its Units, Most Effectively Coöperate in Promoting the Modern Lay Public Health Program

JAMES NEWELL VANDER VEER, M.D.,

President Medical Society of New York
Albany, N. Y.

In a forum of this type to discuss medical topics, it is a hard matter to envisage the view points of others. We can ourselves plan, without considering others, and undoubtedly formulate campaign after campaign and arrive nowhere.

It is for us mostly to deal with our own peoples and through them bring to light the newer types of preventive medicine, which are thrusting their heads upward and are the topics of discussion in all groups, wherever and whenever gathered; and which are bringing forth the query—"what are the doctors doing?" I believe our problems lie in answering that query.

If we divide the subject into 3 parts, perhaps we can carry it the better in our minds: (1) The medical profession. (2) The correlating agencies. (3) The public mind. These seem to be the parties most concerned—though the medical profession has seemed to grasp the changes that are taking place more slowly than the public, and the intermediaries, the correlating agencies, seem to be that factor willing to expend money untold in the philanthropic movements now going forward.

The subject is vast. It is intriguing, and his-

torically seems to have had its inception even before Moses and his well-known code of sanitation. But its depth, length and breadth have not experienced the driving force which we see shown to so great a degree as fell upon us just before, and during, and after our World War, and as is now seen in high speed. The medical profession has from time immemorial been more individualistic and yet more anxious when attacked to defend its general rights, than any other profession extant.

With the national, state and county bodies, progress is slowly, but oh, so slowly, being made. Yet, I feel they are on the right course and need but to be speeded up in their efforts. Too few meetings are held of each of these components and there is too little discussion of real value. Though, when discussion has been free and a plan of action has been mapped out—then, too often, there is shirking on the part of the individual who has the job to do, and he tacitly lets the work go by the board. There are too few men in our component units who think in terms of the unit. Then we have the special societies and the societies of specialists in cities, counties, states and in the national bodies. In the main these special bodies do not contribute to our public health program save as they furnish scientific advancement and perhaps speakers of eminence for lay programs. The academies of groupings do contribute to health programs sporadically, for there is usually some group within the academy that is interested and thus the necessary enthusiasm is aroused. But the county society—the very beginning of the groupings of physicians—has something lacking in a large percentage of such societies in every state. In the county societies lies our hope of first hand education, from whence the individual physician will be educated himself and later pass on the authentic knowledge to his own special set—his patients. But in our county societies as agents, we find 2 very opposed groups—those who scoff at preventive or public health medicine, and those who are pioneering in it. It was so with our Erie canal; with the first railway engine, and steamboat and flying machine; and in medicine we can remember vaccination, antitoxins and a thousand innovations within our own time. There always was and always will be those who cannot sense the future. But if, after due trial, prevention of any disease, or its eradication, can be absolutely predicated, then it is the duty of the medical man to accept the scientific facts and prepare himself to gain the same or a better livelihood in newer lines of similar work.

Our good works are not heralded as widely as are our failures. It is therefore our duty to ourselves to put forth the newer preventive methods and discard the older failures—by taking our own postgraduate work within our own family and taught by our own relations. This can only be done by intensifying our postgraduate work in curative medicine along with broad courses in preventive medicine—given at first to larger bodies which will pass on the knowledge to the smaller units and so to the public. At first we can perhaps only use our public health officials—physicians they must be in every instance, who are sympathetic with the lowly practitioner and his problems, and yet conversant with the specialist and his narrower outlook on extraneous diseases. For this we must tax ourselves. It is due the public, and as we perfect ourselves, in just such proportion will we be repaid ultimately.

We cannot advertise as individuals, blatantly in the press, but by his works can each individual

physician be known, and in very fact so is he known. News agencies and lay magazines are for the second grouping and when properly guided through a relationship between the honest doctor and the honest lay unit can accomplish far more than the medical unit in this day and era.

In state public health work we are being apparently hampered and each year more confined in our scope as individual physicians through laws and regulations. But this is the evolution of the age. Other units of other groups are suffering in the same manner. We cannot prevent it, but our work is to guide it. In many states public health is guided by the state medical unit. In our own state we lost that asset many years ago, but are beginning at least to regain our prestige and position through our own correlating agency unit—which we call our Public Relations Committee. Through it should come a reestablishment of faith. But it will only be here, as elsewhere, through the hard and earnest work of each individual physician on that committee, willing to sacrifice time, and hence money, in the interest of the profession as a whole. Our own state is not organized as it should be. There is laziness among a majority of our physicians; or selfish complacency. Paid executives are needed in larger numbers—and for the smaller units—than even the most foresighted of our own can now discern. Business is being organized even into chain stores and super-groupings to cut out waste and loss of time and energy. The unit of physicians could well employ high salaried executives to plan for them in distribution of effort, allocation of practice and much else which now the individual does not and cannot concern himself with. We can thus prepare against national or state onslaught which would take us as a unit and through the "privilege to practice" so limit our efforts as would compel each physician to locate as are the men on a checker board. That problem is ours to settle—not that of the state or the public. Later, we will organize ourselves into a business unit, as has been done with hospitals, clinics, and even groups as our own state has done in insurance; at first, as now, for defense—later, it will be for offense. Our business executives and legal advisers should be the ones to do this thinking—for the average doctor cannot think in such terms.

The second unit, the correlating agencies, I will not discuss at great length here. We have lost our guidance and direction of their efforts mainly through our own fault in being lazy in past years—and allowing those physicians of far-seeing vision perhaps—and yet of all too selfish tendencies to obtain individual control of unit after unit and then by the simple means of interlocking boards of directors to compel the doctor as an individual or in units to accept the dicta of such groups. To regain our places with such groups by close coöperation in efforts as are worthy but not fanatical is again the duty of a Public Relationship that needs constant and daily nurturing. For this we should be willing to pay—nay, the state should return to the medical unit the privilege of licensing and everyone so licensed should be compelled to be a member of, and under the discipline of, the state medical unit.

As for the third group, the public, we find it fed upon literature of lay and professional—non-practicing—people who are highly theoretic. They toil and spin without ceasing and by such means enmesh the public on the one hand in expensive and highly powered machinery to rescue a few individuals from physical dereliction. It is like

the shepherd with his ninety and nine. The doctor must chime in with plans evolved by those not familiar with actualities and many times is caught in the maelstrom of things not practical. He must meet the public who are receptive but only half-informed and armed with specious deductions that are not only illogical but are positively dangerous. The public must be reeducated and to the doctor falls that duty, alas, finding him in the main unprepared.

The public deals in money values of mass movements, while the physician must necessarily deal in smaller units, mostly of the individual. And as such it is harder for the physician to reach more quickly in a given space of time each individual of his unit.

Therefore, for purposes of publishing the newer methods of prevention and cure of disease the physician naturally looks to the county society or to the larger group to reach, through advertising methods, these newer means of prevention and cure. As well has the public learned to look into the literature of the day and from thence does it gain its knowledge. So again is it a matter of correlation between the groups of the public and their individuals in matters of expression to gain their information from the groupings of the medical profession as to the manner in which the public should be reached in a proper way, and with the latest scientific knowledge.

Much more could be said on the part of the public group and the manner in which information should be gotten to them, and their education so modelled that they realize the standpoint of the physician. And this might well be reserved for future discussion.

A paper, bearing the same title, written by Dr. William T. Sharpless, President of the Pennsylvania State Medical Society, was, owing to his delayed arrival, read by Dr. Walter F. Donaldson.

How Can the Medical Profession, Through Its Units, Most Effectively Coöperate in Promoting the Modern Lay Public Health Program

WILLIAM T. SHARPLESS, M.D.,

President Pennsylvania Medical Society
West Chester, Pa.

In considering this question, one immediately asks himself—what are the "units" of the medical profession meant in this query? Besides our state and county medical societies, there are many local and special societies which are also "units" of the medical profession. The problems of all these societies are largely the same and so I shall assume that the "units" meant are the county medical societies, or at least that it represents them. Again, the question is ambiguous. It asks how can these units coöperate most effectively in promoting the modern health program. Coöperate with whom? With lay organizations? With state departments of health? With individual physicians or other interested but unofficial people? I shall assume again that as most individuals interested in public health are members of some non-medical organization devoted to this purpose that it is these organizations that are meant.

Medical societies, like other societies, are made up of individuals and the activities of the society represent the sum of the interests and opinions of the members, and so it is the individual member of the county society whom we must reach before there can be any coöperation at all. Too frequently this member has very little interest in the general question of disease prevention. He may be very attentive to the needs of his own patients in this respect but the broad question of disease prevention for the masses through legislative enactments or organized effort fails to gain his interest. It therefore seems to me that the first step toward "coöperating in promoting the modern health program" is to reach the average member of our county society and convince him of the importance of the program and the strong probability of benefit to the health of the community. This can only be done by persistent effort, by making it prominent in society meetings and in medical journals and by demonstrating the results of such work in other places. He must also be convinced that the organization with which he is asked to coöperate is worthy in motive and efficient in administration. When there are a sufficient number of convinced and earnest members of a county society to direct the program of the society it may then, and not before, seek coöperation with other bodies working for the public health.

The attitude of the county society toward the lay health organization is finely expressed by Dr. T. B. Appel, Secretary of Health of Pennsylvania, when he says: "The Medical Society should again attain to the position which it once occupied and to which by training and education, theory and ideals, it is better fitted than any other professional or lay organization, namely, the court of reference for data, advice, and influence covering the local health situation."

So much for the campaign of education that must be carried on in many places in order to enlist the interest and coöperation of the county medical societies. All health organizations in a county should be brought together or at least correlated under one administrative head—including social service and visiting nurse societies, neuropsychiatric clinics, antenatal and postnatal clinics, well-baby clinics, child welfare and child guidance clinics, antituberculosis and mental hygiene clinics, recreational activities, etc., in order to bring about economy of operation and to prevent overlapping of activities and of geographic distribution. The relation of the county medical society (through a special committee) to this unified body should be advisory in character and it should map out and supervise the work of the whole.

The first step in a well planned health campaign should be a survey of health conditions in the county, and effort should be concentrated on that part of the county where health conditions are the worst. The services of members of the special committee of the county medical society and of other members of the society should be available in addressing the constituent societies and public meetings under their auspices. The committee of the county society should also arrange for radio addresses where possible, articles in local papers, before teachers' institutes, service clubs, parent-teacher organizations and public schools. Examinations of school children as to their general health as well as mental conditions are now practiced in most of our public schools and here the school nurse as well as the physician can be of the greatest service.

The county society should also sponsor the establishment of new mental and other clinics as the

need demands, where existing organizations do not cover the ground. In Pennsylvania one meeting of the county medical society each year is devoted to the prevention and treatment of tuberculosis and cancer, respectively, and mental hygiene is also given a special meeting. These meetings are usually addressed by some one especially interested in these branches and particular emphasis is placed on the prevention of disease. The public and especially social service workers and district nurses are invited to these meetings. Immunization against diphtheria is a subject which affords excellent opportunity for coöperation between physicians and lay health organizations, as the latter can induce patients to go to physicians for the Schick test or for the administration of toxin-antitoxin. The comparatively recent organization of the woman's auxiliary to the state medical society, which now is in active and helpful existence in about 25 counties in Pennsylvania, is instrumental in the above mentioned activities as well as in promoting periodic health examinations and other means for the prevention of disease. It works in close coöperation with state and county medical societies and the officers of the medical societies or the state director of health indicates to the auxiliary what work in which counties is most needed.

A marked change has occurred in the minds of the laity in the attitude toward preventive medicine brought about largely by the tactful approach of the health workers and the advice of the family physician and the public health programs of county medical societies. Probably the most difficult prejudice to overcome was that with regard to toxin-antitoxin. This has been largely eliminated and coöperation of parents, physicians and health workers has made it possible, according to the report covering 6 years including 1927, to immunize against diphtheria over 600,000 children in Pennsylvania.

It is humiliating to have to record that medical societies as well as individual physicians in many places have stubbornly resisted the earnest efforts of state and other health societies and these organizations were obliged to go to lay organizations for assistance. The demand of certain county societies to control all health activities even to the point of opposing child health centers and other agencies sponsored by the Red Cross and antituberculosis societies and by the State Department of Health.

Certain physicians also insist that only those unable to pay for medical care shall be given the benefit of health centers and that others shall go to their family physicians. Such physicians usually do not give as good care to their patients as those can receive at the Health Centers, and in well conducted centers no advice with regard to treatment is given; for this they are referred to their family physicians. There is a growing feeling on the part of some county health centers that physicians should not be expected to give unlimited free service to those applying to these centers and in some places arrangements are being made to recompense them by money payment. The ideal that should animate all physicians, and this ideal should be expressed through the work of county medical societies, is that of unselfish service to the public—for pay, if that can be made without embarrassment to the patient—free, if the patient is unable to pay; and toward this ideal physicians and lay organizations alike should coöperate, and county medical societies should exercise an advisory care over the whole.

A paper, bearing the same title as the above, was presented by Dr. Andrew F. McBride, President of the New Jersey State Medical Society.

How Can the Medical Profession, Through Its Units, Most Effectively Coöperate in Promoting the Modern Lay Public Health Program

ANDREW F. MCBRIDE, M.D.,

President Medical Society of New Jersey
Paterson, N. J.

In response to President Vander Veer's invitation to present a ten-minute talk upon this subject, that might be considered as in part a basis for the round-table discussion that is to follow, I am pleased to address this Tristate Conference. There are many ways in which one might formulate an answer to the question propounded, and the allotted time might be fully occupied in presentation of any one of those ways, but as I assume the intention is to start discussion of as many as possible of the different phases of this problem, and as I am best informed concerning what my own state society has been trying to do toward the promotion of a modern public health program, it will be best, perhaps, if I attempt to tell this body what the Medical Society of New Jersey has done and is trying to do in this field of endeavor.

During the past 6 years, serving as Chairman of the Welfare Committee, Vice-President, and now as President of that society, it has been my fortune to be intimately associated with the public relations of the medical profession in New Jersey. Throughout all that time the word *coöperation* has been, more than any other, the *watchword* or the *slogan* of the organization and it has had a profound influence upon our work and our progress. There is an old adage that one can "catch more flies with molasses than with vinegar", and that axiomatic expression is applicable to most dealings between organizations of dissimilar type, or between organizations and unorganized groups of people. One might suppose there would be universal recognition of that fact and a natural tendency toward harmony, especially where different groups are engaged in efforts to attain the same given objective, such as abolition of diseases like tuberculosis and diphtheria. As a matter of fact, however, there is very frequently a contrary state of affairs. There seems to be a natural predisposition to object or oppose, inherent to the majority of individuals, certainly to a very large proportion of those engaged in professional work or united in a trade guild. I think it is that natural inclination to oppose new ideas, new suggestions, new methods of procedure, that impels physicians to look askance at any health-betterment proposition coming from outsiders. At any rate, every lay organization that has voluntarily entered into public health work has at first met with the cold shoulder of the medical profession, and not infrequently the profession has been to a degree hostile to public health measures emanating even from what may be called semiprofessional sources, such as Boards of Health. I think it can be said on behalf of the profession that invariably the thoughtful leaders have recognized and supported the worthy public health movements from whatever source, lay or professional, they may have arisen; and, always in time, the majority of the profession has fallen into line.

In New Jersey we have been neither better nor worse than the physician of other states, but dur-

ing the last few years we have been making an extra effort to inculcate a definite policy of coöperation and to apply that policy to our associations, within and outside of the profession, asking only for assurance that the project under consideration is definitely in the interest of public welfare. We might, therefore, answer Dr. Vander Veer's question in a single sentence by saying that the medical profession, through its state society and all the component county branches thereof, can best serve its own interests by a policy of coöperation with any and all agencies engaged in the promotion of real public health programs. That is the principle upon which we have long been working, and the principle that guides our plans for the immediate future.

If it seems desirable to be more specific as to details, we may enumerate some of the ways in which we have found coöperation feasible and advantageous to the public; and I wish to make clear my personal belief that whatever is advantageous to the public is at the same time advantageous to the members of the medical profession.

We have in New Jersey a number of state and county organizations whose works bear directly upon the health of the people. Among these may be mentioned: state, county and city boards of health; a state board of examiners which controls the licensing of physicians and "neophysiicians", if we may use the latter term to embrace osteopaths, chiropractors and chiropodists; a State Board of Education and all of the county and city adjunct bodies; a State Board of Institutions and Agencies, that supervises hospitals for nervous and mental diseases and also the penal institutions. Then, we have a group of organizations, some with county or small local branches, whose interests are concerned with the health of the people in one way or another; the State Sanitary and Public Health Association, Association of Health Officers, the Red Cross, the Tuberculosis League, child welfare organization, State Commission for Crippled Children, and mental hygiene clinics now just being established. With each and all of these, the state medical society—and with reference to local conditions the county medical society—keeps in close contact, offering to supply service and advice whenever desired, requesting consultation upon plans that may be at any time under consideration, and expressing willingness to aid in the promotion of such plans as may be adopted after conjoint consideration. On the other hand we sometimes go to these institutions and organizations with our own suggestions, and with requests that they join us in promotion of some public health movement; as we did, for instance, when launching the Statewide Antidiphtheria Campaign, where we secured the support of all organized lay bodies in the state.

It has become an established custom with us for the President, the Secretary, and the Executive Secretary of the state medical society each to attend 1 meeting per annum of each of the 21 county medical societies. The Executive Secretary keeps in touch with all the other organizations mentioned and, whenever it appears necessary or advisable, the officers of the state society confer with such groups. When visiting the county societies we not only give them national and state organizational news but inquire about local conditions, and if we learn of any trouble existing or threatened, we offer to assist provided the county society cannot itself handle that problem satisfactorily.

We have learned from experience that there are needs of fundamental importance in promoting

health programs. To secure a good crop, the farmer must do much more than scatter a lot of seed; the land must be carefully tilled before and after the sowing. So it is in public health fields; there is much preparation of soil necessary, and there has to be considerable supervision of the work and the workers until the crop is actually harvested. The outstanding need is, of course, education. The public must be educated to the point of feeling the necessity for, and being ready to receive, the proposed health measure. Members of the medical profession must be educated to the point of working in combination and at the right time so that: the plowing and the planting may be done in the Spring, the cultivating in the Summer, and the harvesting in the Autumn; to understand that individual farm-hands, each cultivating his own particular row at such time as chances to please himself, is not conducive to a good crop, that hay must be made while the sun shines; that the united profession, working harmoniously with an educated public, can accomplish much in a short time, while a disorganized profession, at odds with well-meaning, even if misguided, lay bodies, cannot efficiently serve humanity.

Our society maintains a Field Secretary who is laboring day and night to enlighten the people, and just at present she is concentrating upon the young people—school teachers and school children—as to the safeguarding of health and prolongation of life; and her work, coincident with the efforts of the state society officers and the county society membership will, we believe, result in the greatest cooperative movement for health-betterment that New Jersey has ever known.

Coöperation is the word employed in the title given to this discussion, and I have attempted to point out some of the means whereby state and county societies may apply the *principle of coöperation*, but, I wish to add that there is one thing of even more importance than any single act or any number of acts of coöperation; and that is, that our dealings with the profession and with the public regarding health matters must be conducted in the *spirit* of coöperation—for life is in the *spirit*, not in the *word*.

DISCUSSION

In accord with previous arrangement, discussion of these 3 papers was to be by the Presidents-Elect and Secretaries of the 3 societies, and then others present.

Dr. William H. Ross (Brentwood, L. I.): I will assume that what is meant by this subject is coöperation with official and voluntary health agencies. I would like to have heard the speakers put into language the definition of a modern health program. It is not unusual to find a county medical society that has not an understanding of what a modern health program is, and whose members need a "sensitization to the receptivity of new ideas and ideals", as has been said by Dr. Sharpless. While the medical group has done more for human happiness than any other group, and as much for civilization, it has not yet expressed an overwhelming interest in preventive medicine.

In contrast with the indifference of medical societies is the activity of voluntary agencies. Their work has been well expressed by Dr. Theobald Smith: "Without the voluntary activities of lay groups entering the field of public health it would be well nigh impossible to stimulate the interest of the public and create a so-called public opinion, which, in the last resort, is our dependence in assisting the inert mass of tradition—medical, legal and lay—to move a step forward." The

health agencies, both voluntary and official, have done this. Now that the public demand is here, the medical profession must act along with it or suffer a declining influence. Times are changing, traditions fading, and prejudices melting away. The most effective way for the medical profession to coöperate in promoting a modern program will be for its own members to submit to public health education. The medical profession must see that medical practice and that of preventive medicine are not antagonistic but complementary. Public health deals with the public *en masse*, while private practice concerns individuals.

Physicians can best coöperate in public health through the county medical society. The work will begin by a few leaders whose leaven will influence man after man until it inspires the whole membership. The first step of the society will be to organize a real public health and public relations committee, and give such committee power to act in the name of the society. The Medical Society of the State of New York, through its Committee on Public Relations, has advised the county societies to follow this plan, and to take steps to survey the field and ascertain what public health work is now being done in each county, and the organizations so engaged. When the survey is completed the state society can formulate the next step, which is to develop a definite program of coöperation with other bodies working for public health. The county medical society can be brought to do public health work only by pioneer leadership—but the pioneer leader must appear. Dr. Appel, Secretary of Health of Pennsylvania, says: "The county society should regain the position which it once occupied, to provide health data and advice in all local situations."

There should be one official organization in public health in each county, with subdivisions covering the various fields. In counties having a county health department, the county medical society should be the adviser and consultant of the department in all medical matters, as is done in Suffolk County. The profession lacks generally a correlating agent, by whatever name it may be called; some one to represent medical practice before other health organizations. It is often said that a county medical society should conduct a publicity campaign; but how can it do so without a paid agent? It will be necessary that the county society shall tell the people what health service they may get by going to their family doctors. This will include stimulating the people to ask for preventive service. The family physician may not always be prepared to give it, but there is no better way to arouse him to practice preventive medicine than to inspire the people to ask for immunizations and other forms of health protection. Both groups—physicians and lay health workers—need to be educated. Some county medical societies, seeing only the mistakes of lay health organizations, have lost sight of the great good that those organizations have done. Yet these very lay organizations have given a broader conception of what is expected from the family doctor, and have aroused the people to consult the doctors and their county organizations, just as an individual now consults his family doctor.

The constitution of nearly every county and state medical society states 2 objects for which the society is formed: (1) advancement of the science and art of medicine; (2) the betterment of public health. The second object is promoted by the practice of preventive medicine, especially by medical organizations. Many county societies in New York, New Jersey, and Pennsylvania are doing splendid public health work, and are thereby

demonstrating that others can do likewise. It is therefore depressing to hear any society declare that public health work is already being done as well as it can be. How long will it be before the medical profession sees that preventive medicine is opening the door of opportunity for the medical profession to engage in a form of practice which shall more than make up for the loss of practice of the curative form? Preventive medicine is opening the door of opportunity for a solution of many of the problems of the medical profession including that of economic disturbance. The social trend of time has established the era of preventive medicine. We have often heard of the *onslaughts of medicine by the state* and by other organizations, but what and where are these onslaughts? The public, the state, and health organizations expect the profession to do the things that should be done in health advance. The majority of doctors have not yet grasped the idea of entering the open door of preventive medicine, and thereby replacing their occupation lost, as one disease after another has disappeared under the influence of modern health medicine. Doctors can recoup their losses by systematic immunization of the stream of newly born flowing into the world to replace those who have lived their allotted years.

I want to leave this one thought with you today. Let the profession answer the question: In what does a modern public health program consist? Let the profession define its policy toward modern public health service. Is it one of aloofness and opposition; or is it one of active coöperation with all other health forces?

Dr. George N. J. Sommer (Trenton): In reading over the 2 papers that were submitted to me for study, I have been trying to see wherein the profession fails. If I may take my experience as a member of the county medical society for 35 years, naturally I have a great many ideas as to why the local profession at least falls down on local problems, and I have tried to visualize it. The profession always seems to have a hundred reasons why a thing cannot be done and no reason why it can be done. I see the same thing in the hospital staff of which I am a member. After our last conference held in Atlantic City, I went home and talked over the question of health examinations for the members of the hospital staff, trying to have them institute an annual health survey of all physicians connected with the hospital. From the members of the major staff there came at once a multitude of objections. Some of them were afraid they would be expected to have a Wassermann done and if it happened to be positive every one would know about it; or would know about any defects that might be found. Eventually, however, I put the idea over and a committee was appointed at one of the clinical conferences at the hospital where this subject was discussed and illustrated by a film on health examinations. So, in time that hospital staff will get a careful examination at the hands of their fellows and some of them have volunteered to be publicly examined for the benefit of the juniors, to show them how it should be done.

I think the influence of specialism today has in a measure mentally tied the hands of the average practitioner because he only thinks in terms of the ordinary diseases as he sees them from day to day and not in terms of the diseases limited to certain organs. He feels that he is deficient in trying to determine the ordinary visual defects, or diseases of the nose and throat beyond diphtheria, and he does not feel that he is fully up to the

mark but tries to compare himself with a highly trained specialist and therefore prefers to let someone else do it. Our idea was that we would endeavor to show the younger men connected with our staff how easily and simply an ordinary health examination can be made and the necessary training in special lines is quite easy to acquire. Then after doing this we intend to give it some publicity in our local papers and use that as an argument for the general public, that if we physicians are willing to undergo an annual health examination there is no reason why they should not have one.

Now as to the wider problems, I think the average physician looks upon this from the standpoint of economics, failing to realize that the economic side of medicine, even though it is terribly important, adjusts itself. If you render a real service to the community it will respond economically a thousand fold. I, personally, have never considered my work from the standpoint of money and yet I feel that I have been very amply repaid as the years have gone along. I always considered that service was the most important thing and the financial reward the least important and I am free to say that I have not suffered from that standpoint.

For a number of years I had a relationship with some of the local health programs. I was very much appalled at the ignorance of those who ran the program, that is the laymen, and their utter indifference or unwillingness to listen to us, particularly in relation to tuberculosis. They were more interested in running a tuberculosis camp during the summer, and gathering money to run it, than in permitting the profession in general to have anything to do with it. They occupied all of the offices so that the medical men were left out in the cold, and I got out. Another unfortunate thing in relation to these public health programs is our individualistic attitude. Every physician is interested in his own special problem and does not care sufficiently about the problems of others. There are only a few, at least, who have the vision to be interested in others' problems. I have noticed that our county society will have a big crowd in attendance when there is to be a discussion on economics, but if the program consists of some scientific matter, particularly if it is put on by a local man, very few will attend. Out of 140 members we will have perhaps 25 or 30 present. Sometimes when there is very important business to be transacted we will have hardly a quorum. Recently when we were discussing a very important subject—our present attitude toward contract practice and its relationship to the industrial group—we started our meeting with only 18 present, and finally had only 25 out of a total of 140. Even that economic problem did not seem to interest them.

What have I to offer as a solution? I believe that the general policy of coöperation of our state society is the real answer to the question.

Dr. Walter F. Donaldson (Pittsburgh): My contribution to this discussion will take the form of a brief review of a public health movement going on in my own city of Pittsburgh in the last 3 months. I do not believe I will apologize for injecting a selfish angle, because I have heretofore put myself on record in this group of state medical society officers as being in sympathy with practically all of our expressed beliefs to the effect that the reward will come in due time to all who enter fully into these sickness prevention programs.

However, I will give you my personal reactions as a private practitioner. In Pittsburgh's recent

campaign for immunization against diphtheria, our Public Health Director, who has a thorough medical organization background, announced a campaign of 3 months, in which all the efforts of his department would be bent on having children of preschool age immunized against diphtheria by private practitioners before this work was taken up by his department. He had the full coöperation of the Mayor, City Council, Pittsburgh Chamber of Commerce, newspapers, Allegheny County Medical Society, and all such groups. He assured me on more than one occasion that he was satisfied with the way in which the members of the medical profession arose to the occasion. The city even went so far as to appropriate several thousand dollars worth of antitoxin free of charge for the use of physicians. This was accompanied by a request that private practitioners would, in view of this fact, reduce their fees as much as possible. They were asked to make the fee for full immunization equal only that of their usual single office fee if possible. I cannot say what proportion of physicians coöperated to that extent, but I know a great many of them did.

I mention the following experiences, which may seem petty, but I want you to visualize the experience that so frequently contributes to the antagonism among what we choose to call the rank and file of the county medical societies. I had not been interested in this 3 months' campaign very long until, making a call in a private home, a mother said to me: "Doctor, just as soon as Jimmie recovers from these swollen glands which he has developed since having inflamed tonsils, I want you to immunize him against diphtheria." A visiting woman in the living-room said: "Why don't you wait and have that done at school? That is the way we had David immunized." I happened to know that these folks belong to a country club and drive a car, so, as a private practitioner, I immediately received a set-back on the proposed program.

On another occasion, a mother, perfectly able to pay, imbued with the idea that her child should be immunized before starting to public school, brought her youngest child to my office for that purpose, but announced that she would wait to have the other 2 children immunized until the campaign opens up in the public schools.

On another occasion a woman came to consult me about overweight. I learned that she is a school teacher, that her husband is employed, and her father, who makes his home with them, is employed, and that she had in reality probably come to consult me because of the prosperity in the family which permits her to overeat. Then she asked my opinion as to whether or not these public health workers who immunize the children free of cost are competent.

Another woman brought her child to me for immunization and announced that she understood that it was to be done free of charge. I inquired why she had asked me to do it at all, and she said: "Because I know you will do it right", which of course is the explanation as to why any of us have success in competition with free clinics, etc.

I think when we as medical society officers are working with public health groups, we should always keep in mind this very problem of economics, which has been mentioned more than once and which is of fundamental importance. Now, there must be some way in which the public health workers can check on immunization and vaccination of children, free of charge, from homes where the parents can afford automobiles, country clubs, etc. In any program that we consider, we certainly must keep in mind the economic inter-

ests of our fellow practitioners. Otherwise, in a short time, they will have taken away from them the privilege the last speaker referred to, the opportunity to practice preventive medicine. There must be some way found of keeping the people who are well able to pay out of the places where this work is done free of charge. I think our medical societies should begin at once to call attention, as Dr. Wynne is doing in New York, to the fact that paid public health workers, doctors and nurses, who now put in their time in immunizing the children of those who are able to pay, might better be used in some other branch of health work and the taxpayers be saved the money that is thus being expended. I think county medical societies should enter into this problem with the local Chamber of Commerce and other organizations interested in keeping down the taxes, and make it clear that this work must not be done free for those who are able to pay. I think we will be able to interest groups of this kind on this same selfish bases. This phase of the subject is uppermost in my mind at this time, and I think we should not overlook it. I do not know how many of you are doing general practice, but, I assure you, I have not exaggerated this viewpoint. Let us continue our devotion to Public Health Programs, but, at the same time, "protect them (the medical profession) against imposition"—I quote from Article 11 of the Constitution of the Medical Society of the State of Pennsylvania.

Dr. J. B. Morrison (Newark): During the 6 years it has been my pleasure to act as Secretary of the Medical Society of New Jersey, I have conducted a continuous educational campaign in the county societies. At first I was accused of attempting to carry out the message that Dr. Patterson has sent to us today, that the program was too ambitious, that all of us were attempting the impossible. The chief subject of the early education was an attempt to bring about a degree of coöperation between the different state boards and the profession. At that time the medical profession had a chip on its shoulder and there was a constant fight on between them and the State Board of Health and State Board of Education. Coöperation or any attempt to work along the same lines or to formulate a policy that would lead to the advancement of public health seemed to be out of the question. But we have hammered at that so constantly that at last the lance seems to have split the mountain.

Essex County in New Jersey holds the same relation to the state that Manhattan Island holds to the state of New York. In that county a few of us were approached and asked to coöperate with a Public Health Council whose function it was to attempt to supervise and correlate all of the efforts expended on public health in that county. Dr. Sharpless says that all health organizations in the county should be brought together under one body composed of people who are interested in this subject. We said that we would be glad to serve on that council if they would allow us to have 5 physicians on an executive committee of 13 people, and I may say that the 5 physicians are guiding the activity of the work and we look to the time when this health council supervising the health activities in about 1/3 of the state of New Jersey will have this work extended so that we can organize a state council under the same head.

We have done an enormous amount of work in the antidiphtheria campaign and have been discouraged many times with the apparent results, but we heard from the State Board of Health last week that there have been 575,000 children immunized and this compares very favorably with

the figures in Pennsylvania. We are now engaged in an active campaign for immunization of the pre-school children and we look forward to almost the same degree of success. The labor will be greater because it is far more difficult to persuade the parents to submit the little infant to immunization. We are being greatly helped by the Parent-Teacher Association. The figures are being handed to the different diphtheria committees and an avenue of approach to the parents is being opened up.

We are now establishing all over the state of New Jersey Mental Hygiene Clinics and this will be one of the big projects in New Jersey in the next 4 years.

The spirit of coöperation is being pushed in every idea. We are giving up one entire session this year of the Annual Meeting of the Medical Society of New Jersey to representatives of the State Boards of Health and Education, the Department of Institutions and Agencies, and the State Board of Medical Examiners, and we trust at this meeting that their representatives will supply the degree of coöperation which is so necessary. This can only be done by frank round-table talk where we each present our problems and each shows the other where we can best be of assistance.

In all my talks to the county societies I endeavor to impress upon the members of the profession the fact that we are in a changing state, that the practice of medicine is no longer what it was in the past, that no physician can feel that he is serving the public when he will only treat acute or chronic diseases; that the public is being educated to the fact that the medical profession possesses a large amount of knowledge that should be given to the public; that the public expects of us this degree of coöperation in eliminating infectious and other diseases.

Along the line advanced by Dr. Ross, I make talks to every county society I attend concerning preventive medicine and I tell physicians that this is the greatest advance in medicine since the introduction of antiseptic surgery. We attempt to show them that the important point in bringing about preventive medicine is that the people will come to us not when diseased but rather to preserve the health that God has given them, and the economic problem will take care of itself.

We have found our Field Secretary and the Editor of the State Journal of inestimable value. Our Field Secretary makes the point of contact with all the groups where it is necessary to present these ideas of preventive medicine and public health. She is being constantly importuned to give health talks and talks on how to prevent disease.

This year, as a result of our coöperation with the State Board of Education, it has been made possible for all the school children in New Jersey to hear these talks. It is almost impossible to evaluate what this will mean in inculcating this thought in every teacher, every parent and every school child—to go to their physician for health instruction.

Dr. Arthur C. Morgan (Philadelphia): Medicine, where we were on the benches, was taught entirely from the curative standpoint. Medicine today should be taught from the preventive standpoint, with the curative factor being minimized. There should be an attempt made by the organized medical profession to enlist teachers in the medical institutions along this line of a practical application of preventive medicine in presenting the subject to their students. It was my good fortune to serve as a teacher of applied therapeutics

in recent years and I may state that that feature of my teaching, which was paramount from the year 1921, became intensified from the time that I became identified with this Tristate Medical Conference. In our student days, hygiene and sanitation were taken as a matter of course. The teachers were not especially interested, they could not sell their goods at that time. Today, the stone which the builders rejected has become the chief corner stone.

Illustration is one of the best ways of driving home an argument. In Pennsylvania, in the late eighties, a tremendous epidemic of typhoid fever developed at Plymouth. It was definitely traced by Dr. Shakespeare, of Philadelphia, to 1 case, the story of which is recorded in history. That was in Luzerne County. Luzerne and Lackawanna Counties need not be told now about the absolute necessity of maintaining a pure water supply and protecting the watersheds in order to prevent the development of typhoid. On the main line of the railroad running through Scranton there is a very rigid rule of the Railroad Company with respect to keeping the toilets closed when they go over the streams that supply the watershed that feeds Scranton and Wilkesbarre in particular. In Pittsburgh some years ago quarantining for pneumonia was sold to the people because of the efforts crystallized by one man, a director of health. Pittsburgh cannot be sold rigid quarantine against small-pox because they were educated along the pneumonia line but not the small-pox line. On the other hand, Philadelphia needs no education regarding small-pox quarantine but it needs considerable instruction in respect to pneumonia. Philadelphia is being educated along the line of diphtheria immunization and splendid results have been obtained by reason of the recent campaign. We can testify as to the present illustration given by Dr. Donaldson which also obtains in Philadelphia, in particular with respect to the painfully nefarious, pernicious activities of some of the public health nurses. Nurses are discounting the doctors in Philadelphia for their ability and willingness to do this diphtheria work.

One man, in 1907, secured \$20,000,000 from the Pennsylvania Legislature to institute a splendid anti-tuberculosis campaign, and later Trudeau fully established the fresh air treatment for tuberculosis. In so many instances it resolves itself in the one man idea, in the Moses to lead us from the wilderness. He must be a man imbued with the fire of that vision. He must be a man in favor with God, with man and with the politicians. I verily believe that we can accomplish much by trying to educate the politicians, and I mean now the politician in the ordinary sense of that term. He is the man who has his finger on the public pulse; I do not say where his hands are, but that man is in contact with the lay people and we can sell a man of our organized group of politicians, if you please, on the matter of clean water, pure food—and even in New York may I say pure milk. If we can sell these politicians on the protection to life that can be secured in easy manner by attacking the foundation sources of disease, then we will have accomplished much. Franklin Roosevelt has the right idea, as referred to this morning and as he has repeatedly referred to in his writing and radio speeches, all of which are always worth listening to.

Why is it that preventive medicine has received such an impetus in recent years? I think we can trace it back to the by-products of the war in this way: The boy from the country who was inducted into service was given his antityphoid injections. He received something more than an in

jection into the arm; he had a wonderful stimulation to his gray matter. The matter of the care of the drinking water revealed much to that young man. The green light on venereal prophylaxis revealed much of sanitation and hygiene and preventive medicine to that young man. The war over, the young man went back to his habitat with what? A bigger vision, a broader outlook than he ever had before and the young man discharged 10 years ago from the service is now the active man in his community because of the worship that always exists in respect to the man who has served his country and perhaps has been wounded. Therefore, the American Legion members as they go on in their work are spending their time not all for compensation and for hospitalization of the tuberculosis and the neuropsychiatric cases, but the individuals here and there, the men in the smaller communities have demanded and are securing those conveniences of life, those precautions to health that they have found in effect and in force with such splendid results while they were in the United States Government service. That, I think, is one explanation why preventive medicine has obtained such an impetus in the past few years.

I am frank to say that the medical profession has not been alive to its opportunities. In business and in everything else the law of supply and demand is trite but very true, and this is so in medicine. The law of demand on the part of the lay people for protection to health, and particularly to the children, has been a challenge given to the medical profession but not responded to by all of them. We have been remiss. Education, therefore, of the growing generation in medicine and an intensive campaign carried on by the men with vision who are in authority in the various state societies should be continued for all time. There is the sacrifice of money, of time, of domestic comfort on the part of any man in active life. The investment of that is his tribute to his day and generation, so that when he lays down the activities of life he may have the assurance that he has tried in his own humble way to further the best interests of the people at large.

It has been my pleasure to use some alliterations in my talks before county medical societies and one has been that of colleague not competitor, coöperation not competition; constructive criticism always, destructive criticism never. We should carry the message to our county societies and therein lies the greatest responsibility upon the men who are in active office and traveling through the states visiting their county societies. As referred to this morning, the state officers should visit the county society for the purpose of counselling and for the purpose of checking up, and may in round table conferences inform the officers of the county society what the reaction through the state is on any activities they may have, whether they are good or bad. I have in mind one county society that was quite antagonistic to some state medical policies. I visited that county society and met a group of the men at the dinner before the meeting and called their attention to the reactive effect and influence that their attitude had against the whole medical society, on the proposition that they were all out of step but Jim and I was talking to Jim. Because of that talk and carrying to them testimony from other sources, they revised their previous attitude and now all is harmony there.

I hesitate to use the word "specialist" to laymen because the term specialist has come into a somewhat opprobrious use because of the wide acceptance of a certain small book, but my thought

would be that in our preventive medicine work we should not go to the specialists. I think I am safe in saying that a specialist is a narrow man, unless he had been in general practice for over 10 years. I do make the charge that the specialist of today, going from the college halls through a hospital and then with or without a special course afterward, is a narrow man. We shall, therefore, have to go back to the man who has had that seasoning of experience that comes only to him who has been willing to serve as a general practitioner. In him today lies our hope for preventive medicine.

Dr. Ross: I think we should recognize that the Editors may have their fingers on certain things which the rest of us do not know. I will ask Dr. Hammond to discuss this subject.

Dr. Frank C. Hammond (Philadelphia): There are 2 phases of the discussion to which I will refer. Dr. Vander Veer has considered his topic from 3 angles, the first being the medical profession, which, as he truly states, "has grasped the changes that are taking place more slowly than the public". The truth of this statement is being daily impressed upon us. It has been very forcibly brought to our attention at the divers meetings of this conference, more especially the one held at Atlantic City last December, which was one of the best we have had. The transactions of that conference will appear in full in the February number of our State Journal, with a special editorial urging all of our members to carefully read it in its entirety. If they do they will obtain much primary instruction that will make them better understand and more readily grasp the topic of discussion at the session of the conference being held today.

The public is being educated to the problems under discussion, ahead of the doctor. It is only by iteration and reiteration that we can hope to make the physicians realize what it is all about. Those physicians who keep in contact with their county and state societies, and read their State Medical Journals especially, will profit by the continual instruction received, and should better maintain their strategic position in the community. Unless the doctor keeps in continual touch with these problems of organized medicine, brought to his attention by his medical journals, county, state and national associations, through their councillors, committees and other subdivided groups, he will fail miserably in the scheme of preventive medicine. The doctor, therefore, is the primary consideration for instruction.

What is to be the place of the private physician in the future scheme of personal and public health?

Are preventive health measures making any serious inroads on the yearly income of the private practitioner?

An erroneous idea seems to be abroad that there is a fundamental difference, if not an open quarrel, between physicians engaged in private practice on the one hand, and, on the other hand, public health workers and lay organizations interested in promoting public health. Public health and personal health are irrevocably dependent upon the watchful care, the diagnosis and faithful services of the family physician. National, state and local public health administrators are the first to realize that no persons and no agencies can take the place of the family physicians, and lay organizations interested in promoting public health are the first to recognize that the family doctor is the keystone of the structure of public health. In years gone by the physician was one of the few educated people in his community.

Today college and university trained minds are so universal that the physician's mentality is matched on all sides by those around him.

Physicians have always been sincere and of help in the application of preventive measures and have applied them for generations, but these measures can no longer be carried out by the physicians alone. In order to reach all the members of the community, it would seem that mass measures must be applied by the health department. Many physicians have been practicing curative medicine, having little knowledge of preventive medicine. Hence either the health department or a voluntary agency takes the initiative in the program of preventive disease. There has been much unjust criticism on the part of the physician in regard to the encroachments on his practice as a result of active interests of the local public health department as well as of other health organizations. The officers of medical societies may be leaders or followers, and in the matter of preventive measures they must be leaders. The question is frequently asked, outside the medical profession—can medical societies assume the leadership in matters of local public health? The reply is the mere fact that a county medical society goes on record as saying that it wants to assume leadership in public health, which however has little significance unless the society is ready to engage some thoughtful and unbiased person to devote the major portion of his time to obtaining facts, and it is problematic as to how many county medical societies can afford this overhead.

Fees that have been missed by the physician as a result of public health activities in the main is his own fault, because he has not been willing to himself perform the duties necessitated by public health measures, hence some public health officials openly or tacitly express a lack of confidence in the extent to which physicians are coöperating with them; and some tactless agents of private health organizations disparage the family physician. The physician must realize the integral rôle he should assume in preventive medicine, that his training makes him the logical backbone of any public health program, and that state and local medical societies, state and local lay organizations, and state and local health departments have at least become established on friendly and understanding terms.

Under the second grouping, the correlating agencies, Dr. Vander Veer includes news agencies and lay magazines, which "when properly guided through a relationship between the honest doctor and the honest lay unit can accomplish more than the medical unit in this day and era". This is very true, and opens for discussion the question of the acceptance of advertisements of proprietary remedies by these publications. I saw recently in a newspaper a two-column article on tuberculosis, prepared by the State Department of Health for the newspapers of that state, and flanked on either side of the article were featured the advertisements of several vaunted cures for pulmonary tuberculosis. Newspapers and magazines are prone to give much publicity to medical matters, other than syndicated articles. It is natural and regrettable that erroneous statements frequently appear in these articles. It is unfortunate that there is no physician on the newspaper or magazine staff to edit its medical news.

It is most unfortunate that the people are misguided by the extravagant language of newspaper publicity. The public should be informed of the advances made in the sciences, and in order that the publicity relating to the achievements of medicine may be properly released, a medical censor

or adviser for the lay press dispatches would not only ally the better newspaper interests of the country with true professional science, but would serve to differentiate the decent and self-respecting newspapers from those very indecent and non-self-respecting publishers who, body and soul, are owned by their quack advertisers. Not only would the censor save the newspapers from making most ludicrous and stupid blunders in their desperate attempts to report medical events, but he would prevent the outrageous ignorance from becoming more deeply jammed in the minds of the people by the authority of the newspaper.

Usually the medical chroniclings of the daily press are in about equal degree humorous and nauseating to the medically educated man. For very self-interest why do not these "educators of public intelligence" learn to do their work better? Every now and then a press account is to be seen describing how "the eye is laid on the cheek" in order to remove a foreign body, or describing the extraction of steel from the eye by a magnet, "as the eye came nearer and nearer, the magnet, attracting the bit of steel, drew the eye from the socket". The newspaper is bound to draw the eye from the socket in some way or other, and it is in exceptional luck when at one swoop it can do so in the case of both patient and reader.

It is surprising the number of so-called "best" newspapers that accept quack advertisements. In the editorial columns of our State Journal we have suggested on numerous occasions that each county society in the state make an attempt to have the lay publications in their respective counties discontinue accepting quack advertisements. (We do not know of any county society with it all that has taken any action of this kind.) The gullible public is easily influenced by such advertisements and does not for one moment stop to consider the incongruity of nefarious articles on public health matters appearing on the same pages with such advertisements. Here is presented a big field of endeavor, and an important one in the topic before us for discussion.

Then, too, there is the vicious radio broadcasting on matters pertaining to public health, that must be offset by the various agencies interested in the public health program. We have had for a discussion before this conference this very vital problem, but so far without a happy solution.

Dr. Henry O. Reik (Atlantic City): I had the privilege of reading the 3 papers before coming to the meeting and am in hearty accord with the sentiments generally expressed. I have been even more pleased by some of the discussion offered, particularly by that of Dr. Ross and Dr. Hammond.

Before discussing the papers proper, I want to mention my satisfaction, and I want to congratulate you, Mr. Chairman, upon one particular point, and that is the denial that there is or has been an *onslaught* upon the medical profession by the public. I know we sometimes feel that way when special bills are introduced into the legislature or a magazine editor publishes some article that gets under our skin, but I see no serious evidence of any onslaught. I also discount the articles about the "loss of prestige" on the part of the medical profession. I do not know any community in the United States where the doctor of today is not what he has always been, practically the leading citizen in that community. I think the profession holds as much of a position as it always did. We have recently developed a sort of inferiority complex and I am glad that particular point was brought out, for we should shake it off.

We have heard a good deal about the efforts

that have been made in recent years for coöperation and the progress made, particularly as expressed by Drs. McBride and Morrison, in regard to New Jersey—which is the territory with which I am most familiar. I want to particularly speak of some of the reactions that I have gotten from serving as the coöperative agency. As I look back, I think we have made a tremendous advance. Five years ago, in so far as our dealings with lay medical organizations were concerned, we were in a state of controversy rather than coöperation. Today, I think we can safely say there is not a single lay organization considering medical problems in New Jersey with which we are not on a basis of coöperation.

But, I think that is scarcely enough. We have made progress. We have gone far; we have reached a stage now where the public is willing to coöperate with us and we are willing to coöperate with the public. Doubtless that is just as true in New York and Pennsylvania as in New Jersey but, if I sense the situation correctly, at this moment we are rather marking time. The public is waiting for something from us and we have regained that opportunity which we had possibly lost, or at any rate had neglected, as referred to by several speakers today, for *leadership* in public health matters. We have the opportunity today to grasp that leadership and my answer to Dr. Vander Veer's question as to how we can most effectively coöperate in the matter of public health progress would be, that we should add a qualifying word now as to this question of coöperation and perhaps call it a *leadership coöperation*. We found ourselves in the embarrassing position of necessarily approaching lay organizations with a request for coöperation, taking up their programs and trying to rearrange and readjust them and adapt them to the medical profession. We have done well, but has not the time come now for assuming the leadership, establishing a program and asking the lay organizations to coöperate with us? I think that is what they are waiting for. Someone must give the command for a new advance and that command should come from the medical profession.

Dr. McBride spoke of the general progress made and the general policy in New Jersey as regards coöperation. I would like to see that policy go just a step further, and I believe if we take that step it will cure some of the other things we have spoken of, especially the concrete examples of troubles that arise such as Dr. Donaldson spoke of. Those concrete conditions can be changed if these health programs emanate from the county and state societies instead of coming from some lay organization and having then to be adapted to the family doctor.

Perhaps I have reached that age of becoming a dreamer, but I am rather interested in finding that I am not dreaming so much of the *past* as I am of the *future*, and what I have in mind is a vision for coöperation in this work that will embody a strong central state medical society, with strong component branches, working from a definite central headquarters, a medical center we may call it, from which shall emanate all these educational programs. We are convinced, I think, that education of the profession and of the public, in health matters, must go hand in hand. The profession needs it quite as much, possibly more, than the public does at the moment, but the 2 programs should be carried on simultaneously and the only way to accomplish that is to have them come from the same source. With this same central organization and component branches, the

representatives of the state medical society with their vision of what we can do in the way of disease prevention, with a specific program such as Dr. Ross has asked for, to be prepared there and disseminated from that point so that the same program shall go out to the profession and to the public in all their ramifications, in newspaper articles, in broadcasting and speeches from the various organizations, can accomplish a great deal. This should all be controlled by a council or committee or individual at headquarters with a vision, or perhaps better still with the ability to receive and comprehend the visions of others and to transmute them into action. Such an executive, in order to keep his finger on all of these points, would have to do some of the things that Dr. Morgan spoke of, although I do not quite comprehend how a man can keep in favor with the politicians and with God at the same time; that is the hardest task I have heard proposed. But I do visualize, and I think the officers of the Medical Society of New Jersey have something of the kind in mind, such an organization as that. We have a better opportunity in our state to do this than most of you have; with a small, compact state, only 21 counties as against your 64 or 65, in each of the other 2 states, and with strong working organizations in each county. Now, with strong headquarters we could prepare and disseminate such a program as some of you have spoken of and as Dr. Ross has asked for. I believe it is high time to work toward that end in each state, and that our coöperative plan for the future should be no longer trying to find out what the public wants, for we know that and we know to what extent the public is willing to coöperate, but a definite program should be established and the public asked to coöperate with us. I believe if we take advantage of this opportunity we will regain whatever we may have lost, or think we have lost, in the past of prestige and domination and once more be the *real leaders in all medical affairs*.

Dr. George M. Fisher (Utica): The subject which has been before you today is one of peculiar interest to me because it was in my term as President of the New York State Medical Society that we organized what is known as the Public Relations Committee. It is now doing active work. The subject before us today, the relation of the physician to the lay organizations, reminds me of that familiar similar wording, "united we stand, divided we fall", which applies here also. Years ago, as physicians, we got beyond the idea of working absolutely independently and not recognizing the lay organizations. It has been my good fortune in the last 4 or 5 years, since my retirement from the presidency, to be in personal coöperation with the State Charities Aid Association and I believe we have as strong an organization in central New York as anywhere in the state, aside from Suffolk County which our good Chairman represents. To show you the coöperation which exists between the physician and the public, the State Charities Aid Association of our county makes no move without our advice or having a meeting with us. Now when you gather around a table and can talk with a lay organization you certainly are supposed to have some good advice or they would not ask you for it from time to time.

We have recently established in our county a move for a million dollar tuberculosis establishment. Only one hour before I left home I had a consultation with the Executive Secretary of the State Charities Aid Association, a representative of the Tuberculosis Committee and our Health Of-

ficer, and we outlined our plans. By the way, we stand among the big 8 in the list of cities that are ahead in that work. We organized a plan to carry on with the aid of the Tuberculosis Council a continuous antidiptheria program through the coming summer, immunizing all the children in the state and as far as possible outside. Now we as physicians cannot do that alone. We must have a lay organization to advertise and push the campaign throughout the counties. It is said the physicians lay back on the work. They do, but the physician is not to blame, because he is generally a busy man, and the one who is not busy will not be interested. We are carrying on a plan in Utica, in cooperation with the Tuberculosis Committee, of taking care of the parochial schools which have never entered in on this plan until this year. It was through the work of the Public Relations Committee and the State Charities Aid that this program was started.

If you will get your public relations committees active and cooperating with your lay organizations your work will simply roll along. The trouble usually is lack of coördination.

Dr. Joseph S. Lawrence (Albany): The tone of all the papers and discussions, I want to say with pleasure, has not been quite so pessimistic as I have been accustomed to hear when this subject is under discussion. That, I take to be a splendid indication. Evolution in medicine cannot be expected to be any more quickly accomplished than evolution in any of the other professions. If we go back to the history of architecture we will find that leaders in architecture were not appreciated as much by their generation. Leaders in music lived their lives before they were ever discovered to be leaders, and the same is true in regard to painting. Now, medicine is an art as well as a profession. We have ideals and we are striving for them and this morning I realize as I hear you men talk that we are achieving them, in a measure, although it is in only small groups or through scattered individuals. We must consider that the change we have in mind is a deep seated change, as Dr. Morgan pointed out. Even in our own lives we were taught a medicine that was curative, that was founded primarily on pathology, and now we are trying to talk of another type of medicine, not pathology but physiology. We do not wait for the pathology. That is very revolutionary if you stop to think of it, and practitioners are busy men; they are busy drawing upon their immediate resources as they were taught to store them up and use them, and they are too busy to meditate on a different way of solving their problems. We must be tolerant with that condition if we expect to get anywhere. We are unfortunate in one sense because of our living in this particular age, for we have back of us the example of what can be done by an army, and the lay folk have the same example in mind and therefore we grow restless at times; we are impatient and think we should do this all in a minute, and that cannot be done.

We speak of the county society as leading in these things and I share that feeling, but recently I made a study of our state to see how many health officers, of the 600 or 800 we have in the state, are actively leading in their county societies and I found that 22% of them are not even members and I could safely say that another 50% of those who are members rarely attend a society meeting. Now, how can a county society lead in any field of work where it has not any representation to lead them?

Why should not public health programs be more attractive in county society meetings? I was much interested in what Dr. Sommer said about the attraction of an economic program. I have seen that a few times in my state but not universally as yet. The attractive program today, in New York State as a whole, is the highly scientific one. I had the opportunity on Tuesday night of studying an audience on that particular subject. They had 2 speakers that night. I was one and spoke on antidiptheria. I was asked to speak first because the man who was to speak on a scientific subject had not arrived. They listened, at least they had their faces pointed in my direction and had their eyes open, but I had the feeling they were waiting for Dr. Guthrie who would tell them about intussusception. He gave them a splendid paper and they entered into the discussion of the subject in a most interested manner and yet I wonder whether 20% of those men will ever see conditions such as he spoke of that night. They were rather enjoying a scientific atmosphere, which after all is very attractive. When we are selecting people to represent us in our state organizations how many times do we go to the highly specialized man, specialist not in the narrow sense? We select our very prominent surgeons and physicians to represent us, not our prominent health workers. That, I consider, is one of the answers to Dr. Vander Veer's question. If we can in our own group produce a vision that will attract men toward public health we should do it and not let public health be a side issue as it was on that Tuesday evening I spoke of. I think that is contingent upon our interpretation of medicine. Is the profession of medicine really and truly to serve the public, or are we to serve ourselves as members of the profession? Are we to advance ourselves or to increase our opportunities to serve the public? I have in my mind, very clearly pictured, prominent surgeons who have built up magnificent hospitals, who are doing splendid work and with whom, if I correctly interpret their mental make-up as I talk with them, the public has but second claim. Their prime idea is to build an enormous hospital and to conduct the work in it themselves; but whether the community needs it, whether it is serving the community as an institution, is a secondary consideration. The chief consideration is to have a *big operating room, do big operations*, and have an appropriation to carry it. That is one particular reason why the cost of medical care has the ring that it has at the present time. The first question one who is ill must ask is—how much will this cost me? I do not like that title, "the cost of medical care". It is giving the public a wrong slant and I do not believe the public would naturally have thought of it in that way.

Our public health programs, I am aware, are in so many instances one-sided. The lay person, an active, enthusiastic person, who has given a lot of thought to it, sees it from his point of view, and the physician who is called in so many times takes the arguments that are presented at that time. He does not come as well prepared to discuss the subject as other people. I have been embarrassed at times to hear the contributions that are made by medical men to the consideration of public health problems, where there was a mixed group discussing them.

In my attempt to offer an answer to Dr. Vander Veer's question, I would say that we must have leaders in our own profession and they must be outstanding men with a vision, with wisdom, and who will be willing to spend the time that is neces-

sary to make themselves a part of the public health program in which they expect to figure. They cannot come in and go out again and leave their heavy words of wisdom to be silently digested.

Dr. William H. Ross (Brentwood): I wish someone would write 500 words summing up this conference at this point. Among the interesting things that I have read recently was the request of some group asking Ex-President Coolidge to write the history of the United States in 500 words for inscription on the stone face of a mountain in the West. If we could sum up what has come out here concisely and accurately enough so that it could be a text that we could take with us, we could make so much of it, so much more than we can if we have not a clear-cut idea. I am not impressed with anything greater in medicine than the lack of this. We should know many things in common. If we meet the doctors at intervals, with some distance between, it is interesting to see the diverse conceptions of the problems that confront us. That is one of the most striking things that I know of. It is like going into a new age. In Courtland County if one gets an impression, which of course is the cross section of what the doctors are thinking about, that is definite; 50 miles from that place you will get another impression, and 50 miles from there still another. The supervisors in one county have stated that they are going to organize a county health department, and the doctors have not yet caught up; the procession is going so fast toward establishing a county health department that the doctors have not quite gotten ready yet to pass their resolution endorsing it. That is a tremendously complex thing. I think it is time that we should formulate some kind of a policy and state it clearly enough so that we could advertise it to the public in the ways that we can advertise, using that term in the very broad sense.

Now the value of this conference is one of the most striking things because there have been contributions to the various angles of this one question. It is very remarkable and rather an interesting thing. Everyone has seen this problem, therefore there must be just this situation. No one has said that it is not true, therefore we have the right conception. Dr. Fisher spoke of the Public Relations Committee. I just want to add that in New York this is a tremendously active committee now. I am fearful sometimes that I will get into trouble by saying that it is the most valuable committee in the state of New York. The discussion this afternoon should gather up the loose ends of the points brought out this morning. We evidently settled by general agreement many details regarding coöperation. Now, we can add something to that.

AFTERNOON SESSION

A recess having been taken for lunch, the conference reconvened and after some discussion of the letter read by Dr. Lawrence, attention was given to preparation for the next meeting.

Dr. Morrison: I have a definite proposition to be placed before you: After hearing these papers and the discussions touching upon health matters, I want to offer a resolution, that this body appoint a committee, to be composed of Drs. William H. Ross, President-Elect of the New York State Medical Society; Frank C. Hammond, Editor of the Pennsylvania State Medical Journal; and Henry O. Reik, Editor of the New Jersey State Medical Journal; to draft a suitable memor-

ial on how the state medical societies may govern public health matters, and present it at a subsequent meeting of this conference.

This motion was duly seconded and approved.

Dr. Sharpless: The members of this conference from Pennsylvania wish to invite you to meet with them in May next. I presume Philadelphia will be the most convenient place and we shall hope to have the honor and pleasure of entertaining you in May.

Dr. Ross: This meeting has come nearer to hewing to the line than any that I have known and I believe it is because we decided in advance the subject we would discuss. Frequently we have had papers presented and sometimes we have not had concerted opinion as to just what the subject should be, therefore, with the result of this meeting clearly in mind I think it would be well to decide the subject to be taken up at the next meeting. If we know what we are going to talk about we will get nearer to finding some solution of the problem than if we cast about hunting for a solution to fit some problem that comes up later, or to discuss 2 or 3 problems. We have come closer today to having everything headed up under one subject, with the exception of the introduction of one extra subject this afternoon. Therefore, if we could decide in advance what we are going to discuss I think it will be far more profitable. This is not a medical meeting in the ordinary sense.

Dr. Fisher: The A. M. A. is bringing out the project of periodic medical examinations and, as I recall, there has been no discussion of that subject whatever by the Tristate Conference.

Dr. Dougherty: Periodic health examination is a very important phase of economic medicine today. As the Chairman has said, New York State has a very active committee. I know to my sorrow that he gives us a lot of extra work to do and we expect to be even more active. I would like to say one word about what New York City has done and I think it would be a very proper idea if we could get someone from our committee in Greater New York, from these 5 county societies, to detail to this conference the work that has been done. We started last year by appointing a committee to work in conjunction with committees from the other county societies and they have done a remarkable work. Their advertising, their publicity, has been perfectly wonderful to those who looked on, especially to me as director of activities of that county society. We have spent \$30,000, which was not contributed by the county society; the Life Extension Institute gave us \$12,000, the Metropolitan Life \$10,000, and so on. Yesterday afternoon they had a meeting and laid out a scheme of work for the coming year, the issuing of a bulletin, the continuance of education of the newspapers, placards in the hotels and shop windows, etc. They have done a very active work and it would be a good idea if you would interview Dr. Galston who has been conducting that work. I think it would be a very good idea to accept Dr. Fisher's suggestion in regard to having this subject discussed, and requesting a paper from Dr. Galston as a starting point. In this way you might gain considerable information and work up some structure on that basis.

Dr. Morgan: This is a good suggestion and a very practical one. The Medical Society of Pennsylvania espoused this 5 or 6 years ago but it has not been a howling success. The general plan of organization is there and I think the time is now ripe for reactivation of the subject. I am sure

that we would coöperate with the conference in carrying out the general thought.

Dr. Reik: I think this is an opportune subject to discuss but it *has* been before the conference once before. The *second conference* was devoted to that subject and to graduate medical education. That was 4 years ago, so there is no reason why it should not be taken up again, but I did not want you to be under the impression that it had not been discussed before.

And to you, Mr. Chairman, may I say that the subject considered today was *not* determined at the last session; it was by vote there determined that the program should be left to the officers of the New York State Medical Society, and Dr. Vander Veer selected today's subject only about 3 weeks ago.

Dr. Ross: You are quite right, Dr. Reik, I remember now that we discussed the matter and then voted as you say.

Dr. Lawrence: Heretofore the selection of the subject always has been left to the host.

Dr. Ross: I think, however, that is a wrong system. I think whatever defects this conference has had have come because we have not had a planned program common to all of the states represented. If we could do this I believe we would get very much farther. To leave a program to one state to decide upon and have the others go there and join in seems very much like a medical meeting. I would like to see broken up the system by which the host has the authority and the right to select the program. I would like to see the general question determined before hand. I know that Dr. Reik is perfectly correct in what he said, and so far it has turned out pretty well, of course, but that does not mean that it would do so the next time.

Dr. Dougherty: We should have in this conference accredited representatives. I am the only officer of New York County present and I think there should be some way in which accredited representatives could attend this Tristate Conference.

Dr. Morgan: We are all representatives of our state societies. You are one of New York's representatives.

Dr. Dougherty: I do not represent anything.

Dr. Reik: This Tristate Conference is composed of the Presidents, the Presidents-Elect, the Secretaries, the Editors, the Executive Secretaries, the Ex-Presidents, and the Chairmen of the Board of Trustees of the 3 state societies. They are all regularly invited and if they do not come that cannot be helped.

Dr. Dougherty: I have never heard of the Trustees attending.

Dr. Morgan: That motion, to include the Chairmen of the Trustees, was passed during your 4 years' absence, Dr. Dougherty.

Dr. Ross: I think we might select the major subject today and then if a minor one came up later which deserved discussion at the meeting in Pennsylvania that might also be presented.

Upon motion, duly seconded and carried, it was decided that the subject for discussion at the next meeting of the conference would be "Periodic Health Examinations".

Adjournment at 3 p. m.

Henry O. Reik, M.D.,

Secretary.

Woman's Auxiliary

SHOULD DOCTORS MARRY?

FLORENCE AIRD

(The following article, which appeared under the above title in the magazine called *Medical Economics*, November 1929, is reproduced herewith for the purpose of giving auxiliary members something to think about—perhaps to write about—and in the hope that many members will contribute toward dispelling the pessimistic gloom that seems to have enveloped Mrs. Aird; indeed we anticipate receiving a mass of proof that the wives of doctors are an exceptionally blessed and happy class of women.—EDITOR.)

The woman who heard her man say to her: "I could not love thee dear so much, loved I not honor more!" got just about as much comfort out of it, I imagine, as a physician's wife gets out of her husband's gruff and hasty declaration to the same effect.

She may be persuaded that her husband loves her, but she must restrain a strong inclination to stand in the corner with her nose up in the air and howl because he has no time to demonstrate the fact, and because she knows that he must of necessity often pay more attention to his profession than to his family.

Any physician, put on the defensive, will insist that the conditions necessarily existent in a doctor's home are as hard on him as on his wife. But not so. Every man needs some woman who looks up to him, comes to him for help and advice, considers his word law and his actions perfect. But when a man is fed up with this kind of thing all day long, what response can he give when he comes home to a woman who craves the sentiment he has endured from his patients all day long? Does he need a little petting and a little praising and a little fussing over, such as most men expect when they come home? He does not. His feminine patients, from 2 years old to 80, have attended to that little matter.

Does he want to hear about his wife's headache, or how Johnny cut his hand, or to have his wife weep out her troubles on his broad shoulder? Not he! That shoulder is damp already, and he's tired of sopping up tears.

Well, then, does he want to clap on his hat and take his good wife out for a pleasant evening? Not so you could notice it. He feels as if he'd been going in 6 different directions at once, all day; and anyway, he's expecting an important call any minute.

For a goodly number of years I myself have been a physician's wife. I've done my share of looking on from the sidelines, cheering when the going was good and when it was not so good, coaching when coaching was wanted, and even, perhaps, when it was not so much desired; rooting when encouragement was needed, and helping to carry off the wounded when neither cheering, coaching nor rooting availed to avert disaster; even taking a subordinate part in the game when extra players were needed; and at all times keeping a canny eye on the gate receipts.

It is a great game, this medical game. Everything a means to an end, and that end (for physicians) the practice of their profession. Family life and preparation for a future life alike subordinated to their work. Except where their own vocation is concerned, everything taken for granted—from the wife's love to the state of preparedness of the coal cellar for a long and chilly winter.

Personally, I'm in favor of a law forbidding wives and families to physicians. With the best of intentions on a doctor's part, he simply has no time for the cares and responsibilities inseparable from married life; and with the best of intentions on his wife's part she cannot but know more or less unhappiness. She is bound to feel hurt that she can have only the tag ends—few and far between—of her husband's time and companionship.

I am, I say, *theoretically* in favor of such a law; but Heaven grant that it be not enacted while I am still among those present.

There is no remedy for things as they are, that I know of. As long as a physician is in practice he will subordinate everything to his work; and having made a habit of this in the things wherein it is a virtue, he will keep on where the practice is neither necessary nor commendable. New Year's resolutions will help, but as is the way of New Year's resolutions, only for a while.

And the physician's wife, when "Time" has taught her patience and a lenient philosophy, will go cheerfully about the business of life, her motto:

"For every evil under the sun,
There is a remedy or there is none.
If there be one, try to find it;
If there be none, never mind it."

It is a hard enough situation we have got ourselves into, but I don't know anything we can do about it, do you?

Atlantic County

Reported by Mrs. Maurice Chesler

The Woman's Auxiliary to the Atlantic County Medical Society met at the Chalfonte Hotel, Friday evening, March 14, with Mrs. J. T. Beckwith presiding. The minutes of the previous meeting were approved as read.

Final plans are being made for our card party to be given the latter part of April. Plans are also under way for our Annual Spring Luncheon in May.

Under new business, 2 members were proposed and accepted.

On our Advisory Board we have secured the services of 3 prominent physicians, namely; Drs. Homer I. Silvers, Joseph H. Marcus and Samuel L. Salasin.

After the meeting adjourned, bridge was enjoyed.

Bergen County

Reported by Mrs. Edward W. Clarke

The March meeting of the Woman's Auxiliary to the Bergen County Medical Society was held March 10, at the home of Mrs. Herman Halpern, 61 Glenwood Road, Englewood, in the form of a musical tea.

Miss Palermo charmed her audience with her rendition of "Little Boy Blue", by Ethelbert Nevin; "A Heart That's Free", by Alfred Robyn; "A Pastoral", by Veracini and "Serenade", by Toscelli. As a second encore Miss Palermo sang "Sing Me to Sleep". She was accompanied by Florence Shoemaker-Doherr.

Miss Shirley Selvin, accomplished young harpist, who has been heard many times over the air, rendered 3 enjoyable numbers, "Etude de Concert", by Godefroide; "Watching the Wheat", by John Thomas; and "Ballade", by Hasselmans.

The last number was played for the first time in public yesterday by Miss Selvin, and was exceptionally well rendered.

A group of humorous monologues was given by Miss Louella Wohlfert, and included "Aunt Saph-

ronia at the Opera", "The Wife", "The Spider and the Fly", (French version), and "The School-marm Courtship".

Mrs. Halpern, who is an accomplished concert pianist, played a group of selections by Chopin, among them "Toreador Et Andalouse", "Valse Brillante", Op. 34 No. 2 and "Fantasie Impromptu", Op. 66.

At the close of the afternoon's program, the guests enjoyed tea. They included Mrs. M. Sarla, of Hackensack, president; Mrs. Edward W. Clarke, of West Englewood; Mrs. Frank C. McCormack, Mrs. S. W. Vanderbeek, Mrs. E. A. Rohdenburg, Mrs. Charles Dezer, Miss Josephine Palermo and Miss Elvena Bauman, of Englewood; Mrs. S. B. Richmond and Mrs. Charles Littwin of Palisade; Mrs. H. B. Wilson and Mrs. George W. Fink of Hackensack; Mrs. H. J. Horowitz of Ridgfield, and Mrs. Florence Schoemaker-Doherr of Teaneck.

Camden County

Reported by Mrs. T. P. McConaghy

On Tuesday evening, March 11, the Woman's Auxiliary to the Camden County Medical Society held a meeting at the Camden City Dispensary; 26 members were present.

Mrs. A. H. Shafer and Mrs. W. D. Evans were welcomed as new members.

Mrs. William Raughley gave a very interesting talk on her visits to several county meetings.

Mrs. E. G. Hummel and Mrs. George B. German were appointed with Mrs. O. W. Saunders, chairman, to arrange for entertainment in May at our social meeting.

After the meeting adjourned, there were cards for those who cared to play. Tea was served by Mrs. O. W. Saunders.

Essex County

Reported by Mrs. R. M. Rogers

The meeting of the Woman's Auxiliary to the Essex County Medical Society on Monday, March 24, was held at the Nurses' Home of the Newark City Hospital at 2.30 in the afternoon and was one of the most interesting ones of the year.

Special invitations were sent out to the mothers of doctors whose wives are members of the auxiliary to be guests of honor at this meeting. The Social Committee, of which Mrs. J. H. Brothers is the chairman, was in charge and presented each of the mothers with a very charming old-fashioned bouquet as she arrived.

Dr. A. W. Bingham, President of the Essex County Medical Society, gave a very interesting address on the lives and work of Drs. William Osler and Edward Livingston Trudeau, the latter being the founder of Saranac Sanitarium. He paid tribute to the guests of honor.

Dr. Bingham's address was followed by a business session. Mrs. Roy Van Ness, the President, announced that Dr. Bingham had appointed an Advisory Board consisting of Drs. B. A. Furman, Linn Emerson and A. C. Zehnder. She called for reports from the various committee chairmen and each in turn gave a very interesting and satisfactory report; showing every committee going ahead with the work allotted to it.

The new constitution and by-laws were presented and read, to be discussed and voted upon at the May meeting.

It was decided to lay before the Advisory Board the plans which have been discussed for the establishment of classes of instruction in infant care. Announcement was made that the Execu-

tive Board will visit the House of Detention on Monday, March 31, any other ladies were invited to join them. It was proposed to make a pilgrimage to Overbrook Insane Asylum, definite date to be announced at the next meeting.

Mrs. Samuel Jessurun was appointed chairman of a committee to confer with the Advisory Board on the contemplated foundation of a scholarship. Mrs. H. J. F. Wallhauser was appointed chairman of the nominating committee.

After adjournment of the business session, tea was served. Mrs. G. A. Rogers and Mrs. H. Roy Van Ness presided at the tea table.

The guests of honor included Mrs. B. A. Furman, Mrs. Elizabeth Rathgeber, Mrs. G. A. Rogers, Mrs. Archibald MacArthur, Mrs. H. L. Epler, Mrs. Mary E. Donnelly, Mrs. Edward Milton Richman, Mrs. Bernard MacCauley, Mrs. E. M. Rummage, Mrs. Charles Ill and Mrs. H. J. F. Wallhauser.

Gloucester County

Reported by Mrs. H. B. Diverty

The Woman's Auxiliary to the Gloucester County Medical Society was entertained at a luncheon given by Mrs. Chester I. Ulmer, of Gibbstown, prior to the regular meeting, March 20, at the Woodbury Country Club, at 1 o'clock. Mrs. Elwood E. Downs presided. There were 18 members present and honored guests.

We are fortunate to have the State President a member of our society. We are kept in touch with state work and our own need as an organization. Mrs. Underwood has been successful in placing subscriptions for Hygeia.

Work was planned for the near future. In April, we are to visit the State Institute for Epileptics at Skillman. In May, a tea in honor of our doctors' mothers will be given. In June, we are all urged to attend the State Convention at Atlantic City, and to read the State Journal—"Finest in the United States".

Hudson County

Reported by Mrs. Joseph Binder

Mrs. John Nevin, President of the Auxiliary to the Hudson County Medical Society, called the regular monthly meeting to order on March 21, at the Y. W. C. A., Jersey City.

It was voted to make donations to these local charities: the Queen's Daughter's Day Nursery, the Hebrew Home for the Aged, the Salvation Army Home on Garfield Avenue, and the Goodwill Day Nursery.

After a short business meeting, cards were played. Prizes were awarded top score at each table and tea followed.

Mrs. S. A. Cosgrove, Chairman of Program Committee, has arranged a series of talks by eminent men to be given at alternate meetings, whenever possible.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held at the Chalfonte Hotel, March 14, 1930, Dr. H. I. Silvers presiding; there were 45 members in attendance. Minutes of the February meeting were read and accepted as read.

Dr. W. Blair Stewart, of the Public Health and

Sanitation Committee, stated that he had received a letter in reference to a bill that will make hospital, nurse and doctor fees a lien against any money that will be due patients entering the hospital who have any insurance. The bill has passed the first and second readings but when it came up for the third it did not pass due to some technical points brought up by the insurance commission. Dr. Stewart suggested that the society go on record as approving the passage of the bill and that a letter be sent by the Secretary to Senator E. L. Richards asking his approval and support in regard to this bill.

It was moved and seconded that the society go on record as approving this bill.

Dr. Stewart also stated that he had received a letter from Dr. Reik inquiring about physicians in Atlantic City placing their specialties after their names in the classified list of the advertising section of the telephone directory.

Dr. Quinn stated that this practice had been condemned by the A. M. A.

Dr. Allman stated that he did not think it the correct procedure and that it was certainly a form of advertising.

No action was taken by the society regarding it.

Dr. Conaway stated that the bill, with reference to the hospital, nurse and doctor fees, had not much chance of passing as it was, and that it would probably be modified to cover only the hospital, the doctors and nurses coming in as an amendment next year.

Dr. Carrington, chairman of the committee in charge of the postgraduate course to be given by Rutgers University in conjunction with the State Medical Society, stated that the committee had several meetings but that only 6 men have so far been enrolled. Since there must be 25 members in order to have the lectures in Atlantic County, Dr. Carrington asked if there were any members present who desired to take the course; 7 more names were added.

Application for membership to the society was made by Dr. Charles J. Cooney; Drs. Shivers and Reynier having endorsed the application. Dr. Cooney graduated from the University of Iowa in 1912.

Secretary Marcus received a letter from Dr. Reik stating that there would be an art exhibit at the coming State Society meeting and all physicians are invited to enter anything they may have done.

Dr. G. E. Holtzapple, President of the Staff of the York, Pennsylvania Hospital, was a visitor at the meeting.

Dr. Silvers presented Dr. Temple Fay, Professor of Neuro-Surgery at Temple University, who presented a paper on "Cerebral Trauma and Intracranial Pressure; Its Treatment and Prevention of Post-Traumatic Sequels". Dr. Fay's paper will be published in full in a later issue of the Journal.

Discussion followed by Drs. Taggart, Allman and Westcott.

Upon proper motion, the meeting was adjourned after having given Dr. Fay a rising vote of thanks for his paper.

Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The meeting of the General Staff was held on February 28, with Dr. M. S. Ireland, Vice-President, acting in the absence of Dr. David B. Allman, President.

Dr. Hiram K. Johnson, resident physician, presented a case report of an adult male, aged 33,

meat cutter, who was admitted with a gun-shot wound of the tibia. He made an uneventful recovery but while convalescing, diabetes insipidus was diagnosed, the possible cause being pituitary dysfunction.

Had gained 22 lb. in past 10 years; moderate drinker and always took 3 cups of coffee at bed time. Roentgenographic examination of the skull showed the sella turcica of normal shape and size; no evidence of increased intracranial pressure; cloudiness of the left frontal sinus. Patient had complained of sinus trouble for sometime and had been operated upon by a physician in Philadelphia; at which time polyps were removed. The polyuria appeared suddenly 5 years ago. Patient received hypodermic injections of pituitary extract, which was instrumental in bringing about a cessation of symptoms.

Reviewing the treatment of diabetes insipidus, Dr. Johnson pointed out that the beneficial results obtained were due to the pressure principle in the drug and that intranasal application was as effective as subcutaneous injection; that the area of active absorption is limited to the olfactory area in the roof of the nasopharynx, traversing the lymphatics around the radicals of the first nerve; 1 c.c. of pituitary extract was soaked into a swab and inserted into the nostrils every 6 hours; 8 cases treated this way demonstrated excellent results.

Dr. A. G. Menendino, resident physician, reported a case of "Ruptured Ectopic Gestation with Atypical Symptoms".

Patient, S. P., white, female, aged 35, came to the hospital complaining of severe pain in the right side. Gynecologic history: Married at age of 22; 3 normal pregnancies; periods began at 14 years of age, regular, and not associated with pain; no history of vaginal discharge nor leukorrhea; last period, on September 5, was normal in character. On August 11, patient was seized with excruciating pain in the right lower abdomen, while walking on the Boardwalk. Unconscious, she was rushed by ambulance to the hospital, where 3 hours later she decided to sign her release after a diagnosis of appendicitis had been made. Two weeks later she was seized with a similar attack but this time the pain was more severe in character; lasted 3 days. A week later, she was again brought to the hospital.

On palpation, the abdomen had a doughy consistency, marked tenderness and rigidity in both iliac fossas, but more marked in the right; rebound sign of peritoneal irritation was positive. No vaginal discharge present, no signs of pregnancy; tenderness in right and left fornices; cervix normal in consistency. Blood pressure 120/90; leukocytes 17,800; polys. 88%; urinalysis negative. Diagnosis of acute appendicitis. Ruptured ectopic pregnancy was thought of but abandoned.

The patient was operated on immediately and a ruptured ectopic pregnancy found. The left uterine tube, site of all the trouble, had ruptured.

The interesting points about this case are: (1) that the signs and symptoms pointed to the right side, and the ruptured tube was on the left; (2) with all the extravasated blood in the peritoneal cavity the patient did not show any sign of shock or collapse; her temperature, pulse and respiration being normal; (3) absence of any signs of pregnancy in spite of the fact that the fetus was approximately of 4 months' gestation.

A case similar in many respects was reported by Dr. Rupert Butterworth, in the *British Medical Journal* of July 1927.

Dr. Harry Subin submitted a report of the Sur-

gical Service of Dr. Allman for the months of August to October inclusive.

From 246 admissions, there were 155 recoveries, 44 improved, 22 signed releases, 1 unimproved, 3 transferred, and 21 deaths.

Professor Hare has sent pupils to all quarters of the globe with diagnostic ideas that have "stuck", because of his bizarre methods of teaching. What son of Jefferson has failed to carry away with him the moral taught by Hare's pet expression: "Just because you look out of your window and don't see any sparrows doesn't mean that there are no sparrows in Philadelphia, does it?" Obviously not. By the same token, if a man has pneumonia it doesn't mean that he may not at the same time have paresis. Where, therefore, does the road of trauma lead in its course through the human body? Does a fractured pelvis exclude from consideration a punctured lung? Might not a poor creature groaning from agony because of a broken leg, suffer simultaneously from a ruptured viscus? Careless and unfinished is a diagnosis of trauma when it stops with the obvious injury. Look further, and still further, lest the obvious injury be melted into insignificance by death from an associated injury—unrecognized.

One of our traumatic cases occurred in a middle-aged man who fell a distance sufficient to fracture his left tibia and fibula. This was the prominent injury and of greatest moment until careful routine examination, by the Chief Resident, I believe, revealed a depressed fracture of the skull that required a trephining and elevation of the fragments.

Another striking instance of the multiplicity of serious injuries occurring to 1 individual is illustrated by a colored female, admitted following an automobile accident. She had a single fracture of the left femur with separation and displacement of fragments; double fracture of the right femur; fracture of the right tibia; and, multiple fractures of the skull. Of course she succumbed.

Another traumatic case occurred with such peculiar accompanying injuries that I will describe it in some detail: A 9 yr. old boy was admitted to the dispensary August 24, having been struck by a machine. Outwardly, he presented, in addition to desperate shock, a deep cut in the left inguinal region, laceration of the prepuce, and evulsion of the corpus cavernosa. The surrounding tissues were crushed and hemorrhagic. The seriousness of the child's condition necessitated additional opinion, principally to determine whether operative risk was warranted. Dr. Silvers, relieving Dr. Allman, saw the patient and advised against operation at the time, and in a few hours the correctness of his judgment was demonstrated. Autopsy revealed the following:

"All the abdominal viscera are stained with blood although there is little free blood, most of it being under the posterior peritoneum. Superior ramus of the pubis shows a fracture of the right side. The bones forming the acetabulum all appear fractured on the left side. No perforation of any hollow viscera. No large blood vessel ruptured. There was collapse of both lungs; rupture of diaphragm with upward displacement of stomach; subperitoneal hemorrhage of bladder; hemorrhage into pelvis of right kidney; contusions of psoas and ileus muscles; pelvic fractures; intensive subperitoneal hemorrhage posteriorly."

What, with such a shocking anatomic picture, could exploratory laparotomy, anticipating concealed hemorrhage, have accomplished? What, likewise, could have been achieved by an immediate repair of the lacerations of penis and groin if these injuries had occupied the predominant posi-

tion in the symptomatology of this child's injury? How utterly helpless, futile, and contraindicated would any operative procedure have been in the face of a distended stomach blown through a ruptured diaphragm collapsing the left lung.

The next subject that I wish to discuss concerns the nature of findings encountered at the operating table, but entirely unsuspected before hand. Here is a most extraordinary case of a 62 year old male, a stage-hand, who 10 years ago noticed a swelling in the left groin which increased in size as his work increased in intensity. Peculiarly enough, he gave a decidedly significant history, but that history was not obtained until after the operation; frequency of urination, nocturia, voiding in small quantities, and whenever he made pressure on the mass toward the end of micturition he could void a bit more. Within the past 3 years he noticed a lump in the right groin, which likewise gradually increased in size. A bilateral herniotomy was performed on October 9, 1929. The right side was done by the Chief Resident and the left side by the Assistant under supervision of the Chief, but something vastly different had to be present to dampen our hopes of eradicating 2 bad hernias in a 62 yr. old male. The right side was completed and the left side, in process of stripping cord and adherent structures from the sac, suddenly displayed a few stray fibers of unstripped muscle tissue. These fibers had been fused to the wall of the hernial sac and in being stripped away showed a frayed edge that merged from a point below the hernial protrusion. This mass was carefully examined and an accidental opening encountered, through which a clear fluid emerged, yellow in color, with a distinctly ammoniacal odor; and through this same opening digital examination revealed a not too greatly hypertrophied prostate. These findings very naturally involved suturing of the bladder, and its restoration into the pelvis. A retention catheter was inserted for 6-7 days and all 3 hernias were repaired.

I intended to present this man before you this evening but he has gone to Washington and cannot afford his train fare back. However, on his last visit to the dispensary, Nov. 5, 1929, both hernial scars were completely healed and patient stated that his nocturia had entirely disappeared.

Because of the length of time that these bilateral hernias existed, the matting together of tissues and fat prevented a fine dissection. Even in the easy, recent hernia, the anatomic distinction of layers is often quite impossible; therefore, I cannot be sure whether or not this hernia originally poked its way through the internal ring, and then fused itself to the hernial sac in the paraperitoneal variety of cystocele, or whether it protruded through the inguinal canal low down as a direct hernia and then became fused to the sac of the indirect inguinal hernia. I am rather inclined to accept the latter conclusion for 2 reasons: (1) the bladder hernia did not disappear when the contents of the inguinal hernial sac were replaced into the abdomen; (2) the cystocele protruded through the inguinal canal at a point lower than the enterocele, remained extraabdominal after the latter was repaired, and was completely and cleanly restored into the abdominal cavity through the narrow slit lower than the internal ring.

Having touched upon the obscurities of traumatic and operative cases, permit me to place before you the one subject that keeps the profession from resting on its laurels—tumor. Produce a mass whose etiology is hidden, and you sharpen

the wits of any medical man who has once felt the thrill of differential diagnosis.

A colored male, aged 49, was admitted Sept. 30, 1929, suffering from a discharging mass of the abdominal wall in the region of the epigastrium. Characteristic of all patients who present a mass for examination—some strange cause is sought out of their past history and offered as a definite etiology. This patient stated that 10 yr. before, he struck himself over the sternum with an axe handle; a lump formed the size of his thumb and remained of the same size until nearly the present date; 3 weeks before admission the lump spread downward and a reddish discharge was noted. He suffered no great amount of pain. Nothing on general examination but a mass in the epigastrium—roughly 15 cm. in diameter; firm and with a gently sloping elevation. At the summit, over an area of 5 cm. there was fluctuation and the skin had a reddish color; a small sinus discharging a thick reddish substance; mass freely movable and did not seem adherent to structures beneath the abdominal wall.

This patient attracted the attention of everyone and he was studied diligently. Dr. Kaighn, after physical examination, said, "This growth appears to me to be entirely extraperitoneal. It is too inflamed for heavy x-ray therapy, which would be of doubtful value; moderate therapy would hasten the breaking down process. I suggest blood sugar and culture of the pus." Dr. Kilduffe "did not believe the mass to spring from an intraabdominal source". Dr. Timberlake believed it to be "associated with an intraabdominal condition". Dr. Allman stated: "We feel that this mass begins intraabdominally, probably involving the liver."

The patient died October 29, and his autopsy findings show a very unusual and most curious pathologic condition. There are no evidences of metastasis in any of the viscera. The left lobe of the liver was densely and inextricably adherent to all the surrounding structures—diaphragm, omentum, stomach and transverse colon—and the entire mass was adherent to the subcutaneous tissues forming the necrotic cavity above described. There was a ridge-like or neck portion of the superior part of the left lobe covered by a grossly thickened capsule which extended into a large cavity filled with pus and which communicated with the crater-like cavity in the epigastrium. A section through this portion revealed that all the tissues concerned were adherent into one conglomerate necrosing mass. A section *en masse* showed liver tissue; then a dense pearly area—5 mm. in thickness; then an area of liver tissue densely bile-stained and degenerating; then, as the crater was approached, a sloughing, necrotic mass. The liver tissue of the left lobe showed a few scattered nodules, probably neoplastic, and where the stomach and liver were adherent 2 erosions of the stomach wall.

Anatomic Diagnosis: Carcinoma of liver (primary?) with pressure necrosis and possible invasion of the overlying tissues by infiltration.

The extraordinary features in this case were: (1) Absence of liver enlargement. (2) The spreading of a hepatoma from the left liver lobe directly through contiguous structures to the anterior parietal peritoneum, anterior abdominal wall, and finally directly through the wall of the abdomen to break down the surface. (3) The fact that the presenting mass of necrotic tissue in the region of the epigastrium had rather the characteristics of a carbunculous process undergoing slow degeneration than of a neoplasm. (4) The failure of this mass to metastasize either by blood stream or lymphatics. (5) The disproportion of the general

well-being of the patient (for he was far from typically cachectic) and the apparent rapid viscus invasion of surrounding tissues.

Dr. Robert A. Kilduffe, Director of Laboratories, presented the report of the Pathologic Laboratories for 1929. Some of the interesting figures were:

Routine urine examinations, 11,328. Blood examinations, 27,329; these included hemoglobin, erythrocyte, leukocyte and differential counts, Wassermann and Kahn tests, groupings, and various blood chemistry analyses. Feces examinations, 235; sputum examinations, 274; fluid examinations, 867; these included gastric, pleural, ascitic, synovial and spinal fluids. Miscellaneous examinations, 1180; tissue examinations, 675; autopsies, 142. Total examinations made, 42,030.

Publications emanating from the laboratories, written by Dr. Kilduffe, 26; of which 12 represented original investigations during the year and emphasized that the laboratory has not failed to fulfill one of its most important functions.

DISCUSSIONS

Dr. H. S. Davidson considered diabetes insipidus, reporting beneficial results obtained by the use of "infundin" after having derived very little benefit from other brands of pituitary extract; used infundin hypodermically and also locally applied into the nose.

Dr. H. I. Silvers discussed the question of traumatic injury associated with severe shock. These patients present difficulties in differentiating whether the shock is due to the primary and obvious injury or whether there is an associated injury caused by violence of concussion elsewhere in the body. In these cases are we dealing with an injury that is evident or any injury that is concealed, and cited patients who were admitted with fractures, presenting shock; paleness; abdomen tender and rigid; leukocyte count frequently increased; and symptomatic treatment is instituted. Several hours later the patient's condition remains unchanged and upon operating nothing is found, but the shock disappears after operation.

Dr. T. D. Taggart stated that in multiple injuries a very careful examination is essential in order to discover extraneous pathology other than that presented by the injury. He cited the case of an adult male who was injured by an automobile, picked himself up and was taken to a physician who treated a wound of the scalp; later he was admitted to the hospital in an excited state, but with clear mentality; soon became unconscious and presented the classical symptoms of fracture of the skull with intracranial hemorrhage. The spinal fluid pressure was greatly increased and tinged with blood. Nothing could be demonstrated to warrant even a suspicion of internal injury. The patient was decompressed and extradural and subdural hemorrhages were present, with lacerations and compression of the brain tissue. The patient died the following morning. At necropsy the salient features, other than cranial findings, were rupture of the stomach, spleen, liver and left kidney.

Dr. T. Senseman stated that it was difficult at times, especially in trauma sustained by a child, to rule out abdominal injury. He lays great stress upon differentiating spasm and rigidity of muscles. He demonstrates spasm by placing the hands on the abdomen and, when possible, distracting the child's mind; by constant, gentle pressure the abdominal muscles soften and excellent deep palpation is obtained. This is in contradistinction to rigidity, in which the muscles are under more or less constant tension and act as a

protective barrier to the sensitive and injured organs lying beneath; this is true rigidity and deep palpation is practically impossible.

Dr. C. L. Andrews discussed the cause of diabetes insipidus and dwelt upon the pathologic pituitary gland as being a causative factor.

In dealing with violent trauma as exemplified by accidents it is always best to take into consideration a complete analysis of the mechanical procedures involved in the accident, when such factors are obtainable. It is best to delve into the angle of resultant trauma, and not infrequently suspicions will point to injury of an organ remotely situated from the primary lesion. He emphasized the importance of "leads" in the taking of a history and to eliminate as much as possible the stereotyped questions referred to in the history, to the exclusion of other intangible elements which might have a direct bearing upon the present illness.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at the Hackensack Hospital, Tuesday evening, March 11, with Dr. Edward W. Clarke in the chair. By unanimous consent it was decided to dispense with the regular order of business, as the program of the evening would be long and interesting. Prof. T. Vassar Morton, of Rutgers University, announced the plans for the postgraduate course to be presented to members provided 25 would enroll.

Resolutions on the death of Dr. M. J. Sullivan prepared by Dr. John A. Pratt, of Dumont, were read (see Journal department "Obituaries").

The Scientific Section was then turned over to Dr. C. Littwin, Chairman of the Program Committee, who first introduced Dr. C. Ward Crampton, of New York City, head of the health examination clinic at Post-Graduate Hospital, Chairman of the New York State Committee on Periodic Health Examinations. His subject was: "Newer Methods in Diagnosis, with Special Reference to Health Examinations." His paper will be published in the New York Section of "Clinics of North America". Discussion was opened by Eugene Lyman Fisk, M.D., Medical Director Life Extension Institute, who said:

"I have listened with the deepest interest to this paper. I am in hearty agreement with the essayist's philosophy and the principles he lays down. He has outlined an ideal method of searching the human body and the human life for pathology or impairments that may unfavorably influence its destiny.

I admire the etymologic dexterity with which Dr. Crampton juxtaposes his terminology "Synthetic Diagnosis"! It has a Spencerian majesty. The only fault I find with it is the word "diagnosis" but I have no other to substitute. I must admit that Dr. Crampton has said in two words what I have often tried to say, and not so well, in many words. Once in discussing these problems with a group of distinguished Boston physicians, presided over by Dr. Richard C. Cabot, I made the statement that I thought the word "diagnosis" had done more to hold back the progress of medicine than any other term. Dr. Cabot abruptly asked, "Why do you say a thing like that?" In response to his question I cited a case very much like the one described in Dr. Crampton's paper. I said, 'Here is an actual case of a man who took a health examination. He was found to be 50 lb. overweight. He had septic tonsils, a number of septic teeth, flat foot, uncor-

rected defective vision; he was constipated, his blood pressure was somewhat advanced, he suffered from headaches and some disturbance of the reflexes; finally, he had a 4+ Wassermann. Then I put the question: What is your diagnosis in this case? The answer was 'All of those things'. 'Yes', I replied, 'but what confidence have you that a man appearing with the symptoms of headache and absent knee jerks and a 4+ Wassermann test would have very much further research made? Would it not, on the average, be diagnosed as a case of syphilis?' This was admitted.

However, as Dr. Crampton has so aptly and dramatically stated, in lifting the major burden off a man's back, it is well to take the minor burdens of lead out of his pockets. This applies in syphilis as in any other disease. Probably all of you have had experience with cases of syphilis that were resistant to treatment until such conditions as septic tonsils or septic teeth were cleared up.

Frankly, how much probability is there that in this particular case, under ordinary clinical observation, any attention would be given to the man's flat feet or to his error in vision? How much attention would be paid to the tremendous burden of overweight that he was carrying that unquestionably contributed to his high blood pressure? Perhaps in up-to-date clinical work comparatively complete surveys are now more common than they used to be and perhaps more common than Dr. Crampton suggests. I am sure there is a different spirit abroad than there was 10 years ago. The trouble is not so much that of technic or routine but rather the spirit in which the work is done. Having the emergency diagnostic ideal, one is too completely satisfied with putting a name to a disease and the full regional examination of the body is apt to be neglected.

Medicine, we are told, has become so highly specialized that it is hard to find a general practitioner. Inasmuch as it is a difficult matter for the average patient to get around to all the specialists' offices, how frequently must a patient fail to secure a complete regional examination—an examination made from the standpoint not of naming some disease entity which is not an entity at all but a mere phase of his physical existence, and too often merely a symptom of some remote process, but rather from the standpoint of eliciting complete information regarding all existing defects, physical or psychic, that may influence the course of the life unfavorably?

This synthetic diagnosis is particularly helpful in uncovering what I have termed *silent sickness*—that is, chronic organic trouble that does not speak in terms of disability. I have here a chart that discloses this situation of *silent sickness*. What part silent sickness plays in the aging of the human body and how serious a problem it is with advancing years, is shown in this other chart revealing the results of 100,000 examinations.

I should like here to make the point that no one should be discouraged because of a feeling that the ideal comprehensive synthetic survey proposed by Dr. Crampton is not readily available in every physician's office. I am a hearty believer in providing such a survey where the time and money are available to cover it. We should not be niggardly with our money or in our efforts to protect a thing so valuable as human life but it goes without saying that such a highly specialized survey cannot be made available to the average individual throughout the country.

I am a member of the committee of the Medical Society of the County of New York for the en-

couragement of these health examinations by the general practitioner. I believe that the same philosophy and principles advanced by Dr. Crampton can be applied in the work of the general practitioner, even though he may not have at hand all the apparatus and equipment for doing this work in the ultimate sense.

There is one extremely important, highly valuable procedure which every general practitioner can carry out—but which I am safe in saying most do not—and that is removal of the clothing of the patient. It is astonishing what pathology may be revealed by this simple procedure. It is not quite as simple as it may seem at first, because it requires office equipment and it takes time; but the physician who treats a chronic case without having done this is taking heavy chances.

Dr. Frank Billings has stated that 75% of the people who passed through his office, referred to him by general practitioners—usually high-grade practitioners because Dr. Billings was a sort of supreme court in diagnosis—had never had their clothing removed in the course of a medical consultation. I can tell you of a man who had passed through the hands of 9 physicians without his trouble being recognized until he had a health examination in which his clothing was removed and thyroid trouble was at once revealed. I figured this man had probably had his shirt raised over his thyroid gland while his heart was being examined. Interest had centered on his heart, which was supposed to be involved. This individual, a key-man in industry, was more or less of a wreck, until his thyroid was operated on, and he is now functioning normally.

The trouble with the general practitioner is that he passes altogether too much on to the specialist. Any man well grounded in medicine can equip himself to make a good preliminary survey of each region of the body that will be impressive and valuable to his patient and will at least put him on the track of that patient's troubles, which later may be more definitely outlined through specialized regional examination.

I have had experience in the last 15 years with the examination of approximately a million cases examined always fundamentally and primarily by a general practitioner. That such work is practical and valuable and informing is shown by the records in this chart.

Dr. Cabot, who undertook to do this work with specialists some years ago, found that was the wrong method of approach. A good, well-posted, well-equipped general man, working in the spirit of synthetic diagnosis, can turn out a most valuable health examination. He cannot always finish the job. He may have to pass up certain trails to be followed by the specialist, but if he has started the right trail, it is to him that the credit must go for saving the patient's life.

I believe in encouraging thoroughness, completeness and the use of every possible scientific aid in the management of a human life and the guiding of its destiny; but because we cannot ride in a Rolls Royce is no good reason why we should refuse to go to the station in a Ford. These regional, systematic surveys either for health purposes or for clinical purposes are not sufficiently practiced. It is desirable to make them widespread and universal. This can be done through the general practitioner and then let medicine mobilize as best it may to cover the situation in the ultimate sense demanded by Dr. Crampton.

These simple fundamental physical examinations have shown in the groups examined a saving in mortality of 18 to 23% and in the age group 50-60, of 53%. Such work is worthwhile even

though it may not represent the optimal performance."

Discussion was then continued by Dr. Reinartz, of the Prudential Life Insurance Laboratory and Longevity Service. He told of the experience his company had in checking up on the periodic health questionnaires sent to their policy-holders from time to time.

After a general discussion by Drs. Huff, Irwin, Trossbach, Pallen, Levitas and Vroom, Dr. Camp-ton answered several questions, and the meeting was adjourned at 11 p. m.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

A regular meeting of the Burlington County Medical Society was called to order at 1.30 p. m., Wednesday, March 12, 1930, at the Burlington County Hospital at Mount Holly. There were 33 members and guests present, with President Stokes in the Chair. The guests included Drs. A. S. Ross, of Camden; E. B. Miller, of Philadelphia; Hunter, Diverty, Campbell, of Gloucester County; Professor Bronz, of Rutgers University. The minutes were read and approved. Dr. Louis E. Viterl, of Burlington, was elected to membership.

Professor Bronz, representing Rutgers University, officially presented the postgraduate medical course in medicine and surgery to the society. Burlington would combine with Camden and Gloucester Counties for the medical course which would be held at the Camden Dispensary. Those desiring could attend at Trenton. The surgical course would be held at Mercer Hospital from 4 to 6 p. m., and the medical course at Saint Francis Hospital. Asbury Park and Trenton had received the above courses enthusiastically. About 6 to date expressed their desire for this work.

Dr. Henry W. Cattell was appointed Delegate from Burlington County for the revision of the United States Pharmacopeia at the meeting in Washington.

A letter from the Board of Medical Examiners to the Secretary was read. A list of dentists, chiropractors and physicians in the telephone directory for Burlington County accompanied the letter. It was desired that the secretary check off any errors. This would obtain a more accurate list and check any physicians who do not have licenses.

The Porter Bill before Congress was presented by Dr. Darlington. If this bill becomes a law, a physician, dentist, veterinarian or pharmacist, authorized by the state to practice his profession, cannot use narcotic drugs in connection with his work until a Washington Bureau Chief, under rules and regulations of his own making, says that he may. Autocrats of such a type have no place in the American scheme of government. All present were urged to write Congressman Bacharach and Senators Kean and Baird against this bill.

Dr. Darlington said that registered physicians should be in charge of State Medical Institutions. This is not the law now. This matter was referred to Dr. Remer to present to the Welfare Committee of the State Society for repeal.

Dr. Newcomb in his report on legislation said that there were more bills presented now than ever before. The surgical bill No. 93 was still too high and would die in committee. The bill allowing osteopaths to practice major surgery would die in committee. Assembly Bill No. 284 is a good bill. This is a lien on accident bills for hospitals. Last year it cost the hospitals \$600,000 to care

for accidents for which they received about \$300,000. The lawyers are against this bill because it does not leave enough for their fees. There is a bill to stop the tuberculin test for cattle. This would bring infected cattle from surrounding states to New Jersey. Our children would be fed infected milk. Bill No. 214 is a vicious bill, which would allow a matriculate of a class A school with proper preliminary education to practice medicine in New Jersey, although a graduate of a class C school.

The program for the New Jersey State Antidiphtheria Campaign was presented to the society. The object of the campaign this year is to immunize the preschool child by the family physician. Dr. Downs was appointed chairman for Burlington County and the society voted its co-operation of this plan. The society is not in favor of clinics for this work. Any child unable to pay can receive this treatment if a statement from the local overseer of the poor is obtained.

Dr. Downs, Chairman of the Section of Surgery, announced the following program: "End Results of Fractures", by Dr. Alexander S. Ross, of Camden.

Dr. Ross based his paper on his experience with 1000 cases at Cooper Hospital and 2100 cases while in charge of the New Jersey State Rehabilitation Clinic at Camden. He included the following statements: The results are considered 2 or 3 years following the accident; the result depends on the position of fragments, type of fracture and bones involved. Formerly his awards of disability were large—40%—but now are much smaller—10-15%. Disability depends not so much on the bones involved as the loss of function of the surrounding tissue. Results in children are better than adults. Early physiotherapy is a great aid. Fractures of different parts of the body were commented on. Volkman's Contracture if not treated early cannot be helped. Early rotation of the shoulder is a benefit in shoulder fractures. Pelvic fractures give good results. Fractures of the os calcis give poor results. Malleting in position seems to give the best results. Results in spinal fractures depend on the type. The use of the Bradford frame, followed by a brace for from 8 to 11 months, reduces the disability. Intermaxillary wiring of the jaw by dental surgeons is the best treatment. Fat embolism occurs not after the first reduction of a fracture but occasionally after the second attempt.

Dr. Edwin B. Miller, of Philadelphia, followed with his subject, "Some Ophthalmic Ward Pictures and their Significance". Dr. Miller from records of his private practice presented cases illustrating the different types of cases and their relation to medicine. The first showed the neurologic aspect; the second, the medical aspect with a kidney disease; and the third, the surgical aspect with a brain tumor. Under the subject of deviations from the perfect muscular adjustment of the eye, he spoke mostly of heterophoria, or tendency to slight deviation. Treatment of imperfect muscular adjustment should begin as early as noticed. If corrected before the sixth year of age the eyesight will be saved. If corrected after the sixth year, the sight of the adjusted eye will never return. Pictures of patients before and after treatment were presented. Glaucoma following excesses in fasting, especially in the Jewish race, was mentioned.

Following this highly interesting program, the meeting adjourned to reconvene at the county hospital in May.

CAMDEN COUNTY

Robert S. Gamon, M.D., Reporter

The regular meeting of the Camden County Medical Society was held March 11, 1930, at 9 p. m., with 46 members in attendance.

The first paper on the Scientific Program was "Résumé of Gastric and Duodenal Ulcers Treated Surgically During the Past Two Years at Cooper Hospital in Camden". There were 68 cases diagnosed ulcers, of these 47 were surgical ulcers. The classification as to position of these cases: 20 were duodenal ulcers and 27 were gastric ulcers. There were 12 ruptured ulcers in the duodenal group and 19 ruptured in the gastric group; 21 cases were treated medically. The mortality of the surgical cases was 25%. This mortality included the cases operated after they were ruptured and the cases in which no rupture had occurred. The end results were not complete, inasmuch as only 30 cases responded to a questionnaire; 2 cases of carcinoma are known to have developed from this group.

This paper was discussed by Drs. Joseph E. Roberts, Paul M. Mecray, I. E. Diebert, T. K. Lewis, William Shafer and Ralph K. Hollinshed.

"Immunization to Diphtheria by Toxin-Antitoxin, with Some Early Results" was the subject of a paper by Dr. A. L. Stone, Director of Health, City of Camden. The early results of toxin-antitoxin treatment in New Jersey are being experienced this year. The cases of diphtheria in school children having had the treatment are lower than ever before. There have been 7 cases of diphtheria in the state which have received the toxin-antitoxin treatment. These patients all recovered. The outlook for the control of diphtheria by the use of toxin-antitoxin is in proportion to the number of preschool age children inoculated.

This paper was discussed by Drs. Macalister, Rogers, Mecray, Lewis and Palm.

The third paper of the evening was given by Dr. G. F. West on "Successful Use of Anti-Streptococcus Serum in Treatment of Septicemia, with Report of Cases". The essayist spoke of the anti-Streptococcus serum as most valuable in prophylactic use in cases that were suspected of becoming infected with the Streptococcus group. Its use combined with general supportive measures has been entirely satisfactory and has done no harm in any case in which it has been used. The writer reported 6 cases in which the anti-Streptococcus serum was used and the blood culture findings before and after.

The Educational Committee of the Camden County Medical Society reported on the postgraduate courses of lectures to be given in the southern part of the state. There seems to be some apathy among the members of the Camden County Society with regard to this program. This is undoubtedly due to the fact that Camden is in such close proximity to Philadelphia and that many members of the society are constantly taking advantage of the postgraduate courses offered by the Philadelphia County Medical Society and the various institutions giving postgraduate work.

The Committee on the Revision of the Constitution and By-Laws reported. Dr. B. F. Buzby read the revised Constitution and By-Laws for the first time. No action was taken on first reading.

Drs. C. F. Hadley, 210 W. Maple Avenue, Merchantville; Warren Pinner, 14 N. Twenty-Seventh Street, Camden; and R. L. Sharp, 817 Cooper Street, Camden; were duly elected as members of the society.

The April meeting is to be held in the Cooper Hospital and the program will consist of a clinical presentation of cases by members of the staff.

CAPE MAY COUNTY

Eugene Way, M.D., Reporter

A special meeting of the Cape May County Medical Society was held at the Douglass Hotel, Cape May Court House, on February 27, 1930, with 27 in attendance and the new President, Dr. Millard Cryder, in the chair.

A communication from Dr. H. O. Reik was read, which urged physicians to add "Art" to their other accomplishments.

A pamphlet, outlining a Post-Graduate Course of Study at Rutgers University and other points was read and a course for physicians from Atlantic and Cape May counties recommended. The President appointed Drs. Crowe, Way and Dandois a committee to arrange for said course.

Dr. Crowe, Councillor of Fifth District, announced a District Meeting at Woodbine Colony on April 17, further notice of which will be given.

The President introduced Dr. Harry Stuckert, of Jefferson Medical College, who gave an address on "Fibroid Tumors and Their Relation to Obstetrics and Gynecology". The address was highly interesting and instructive and Dr. Stuckert was requested to send the paper to the Journal for publication. Dr. Robert Bradley, of Atlantic City, gave a wonderful address on "X-rays and Their Interest to the General Practitioner." Dr. James Hunter, Past President of the State Medical Society, made a pleasing address.

The Woman's Auxiliary also held a meeting and at the luncheon that followed addresses were made by Mrs. James Hunter, President of the State Auxiliary, Mrs. Sylvia Crowe, Mrs. Frank Hughes, Mrs. William A. Westcott and Mrs. Raleigh, of Camden.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

Dr. Charles E. Vail, Medical Missionary, told of his 20 years' work in India, at an open meeting of the Essex County Medical Society Thursday evening, March 13, in the auditorium of the Academy of Medicine, Newark. Dr. Vail, son of Dr. William H. Vail, of Newark, is Physician-in-Charge of the Presbyterian Mission Hospital and Medical School at Miraj, Bombay, in Western India.

Of special interest was Dr. Vail's description of the results obtained in the treatment of leprosy. More lepers have been discharged cured during the past 2 than in the previous 20 years. If a patient comes under treatment within 3 months of onset of the disease, complete cure is practically certain. The method of treatment is by injecting the esters which have been extracted from Chaulmoogra oil. Native workers who have been trained in leprosarium of the hospital go out into the villages to diagnose and treat the disease during its primary stages.

Certain plastic operations are especially frequent because of curious customs of the people and racial characteristics. Many patients seek reconstruction of the nose which has been amputated; cutting off the nose is a common method of revenge in India. The reconstruction operation is frequently so excellent in its results that it is difficult or impossible to detect that there had been a mutilation.

Arthroplasty of the elbow joint to overcome an absolutely firm bony ankylosis is also frequent. The technic has been so perfected that uniformly excellent results are obtained from open dissection and joint reconstruction using sliding skin flaps.

Dr. Vail described the different races of people

in his district, their customs, modes of living, and sanitation. Dr. Vail's hobby in his spare moments and vacation periods has been the study of natural history, especially the birds and wild beasts. He described and showed pictures of the Indian Elk, the Cheetah, Wild Board, Panther, Elephant, Sloth Bear, Bison, Hunting Wild Dog and Bengal Tiger. Beautiful colored stereopticon and moving pictures were shown.

The King Emperor of India has recently honored Dr. Vail by conferring on him the order and medal "Kaiser-I-Hind" in appreciation of distinguished services for the people of the land.

Dr. Arthur W. Bingham, President of the Essex County Society, presided. After the minutes of the previous meeting had been reviewed by the Secretary, Dr. Frank Pinneo, a letter from the Hudson County Medical Society was read giving the pedigree of a Dr. Charles W. Ireland who has been advertised to the profession recently. The facts in the letter were for information of the general profession and indicated that neither Dr. Ireland nor his work could be endorsed by the Hudson or Essex County Societies.

The meeting was graced by the presence of many ladies.

Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

E. Le Roy Wood, M.D., Secretary

Dr. Clifford Ashby, of East Orange, was the essayist of the evening at the meeting of the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey, Monday, March 10. His subject "Cavernous Sinus Thrombophlebitis Complicating Peritonsillar Abscess, and Pterygomaxillary Fossa Abscess" was treated exhaustively. A specific case was reported in minute detail correlating the disease progress with manifest symptoms to show their anatomic and pathologic basis. The whole subject of cavernous sinus thrombophlebitis was reviewed, and 5 other cases that had come under Dr. Ashby's attention were reported.

Cavernous sinus infection, though not a very frequent complication, must be borne in mind as a possible development from infections anywhere about the head. It results, like other intracranial complications, from thrombophlebitis in suppurative areas and extends by way of venous structures directly or indirectly to the cavernous sinus. This disease is of special importance to the otolaryngologist because it has its inception, in most cases, in fields with which he is concerned. Because of a high mortality rate, early diagnosis and operative intervention are necessary to give a patient any chance of recovery.

Venous structures having access to the sinus are numerous and complicated, having many connections and anastomoses and providing several routes of entrance into the cranium. Surgical attack directly upon the sinus is difficult and unsatisfactory because of its inaccessibility, the important neighboring anatomic structures, and the fact that connecting veins are almost invariably involved in the thrombosis. Symptoms of the disease are of 4 types: general, obstructive or local, neighborhood and complications, and the order of occurrence depends upon the route of invasion, whether anterior, mesial or posterior. The classical findings of exophthalmos and chemosis may be early when the invasion is anterior, but transient because of collateral circulation. In posterior and mesial cases, general and neighborhood symptoms are the early findings and may persist for some time before complete occlusion of the sinus.

The case reported had its inception in a septic sore throat and peritonsillar abscess which was incised for drainage. The route of invasion into the cavernous sinus was posteriorly, by way of the pterygoid plexus, internal jugular vein, and inferior sinus; substantiated by the clinical course, conditions found at operation, and the pathology revealed at autopsy.

Operations for the relief of this disease should aim to eradicate the original site of infection and evacuate pus, establish drainage in the original focus and put the sinus at rest by ligation of the common or internal carotid artery. If all circumstances are favorable, direct attack to the sinus should be attempted, but this must be done early to offer any hope of recovery.

Dr. Louis Weiss, of Newark, read a paper entitled "Cause and Treatment of Some Frontal Headaches", describing painful conditions due to nasal obstructions that require removal or correction.

Dr. Linn Emerson, of Orange, exhibited 4 patients, a mother and 3 children, in each of whom was present a "Discoid Cataract". The following description of the condition was read:

This is a rare form of congenital opacity of the lens and may be regarded as a variety of anterior polar cataract. The disc-shaped opacity in the anterior area of the lens is set in a ring of clear lens substance, giving the appearance indicated by its name. The story of the discovery of this form of congenital, familial and stationary form of cataract is told by E. Nettleship and Menteith Oglivie (Trans. Ophth. Soc. U. K., Vol. 26, p. 191). The Coppocks and their descendants have lived for many generations in Oxfordshire, England. Of the present population (1500) of Headington Quarry at least 500 are descended from the original John Coppock, who was born in 1774. They are a bright, intelligent race, above the average height and girth, live longer than their neighbors and are freer than they of syphilis and rickets. They are thought to have a strain of gypsy blood. They do not intermarry. Twenty members of the family are known to be affected by the form of cataract that bears their name. The authors say that the "cataract itself, always very partial and circumscribed, is sometimes so slight as to require careful seeking. The patient is often unaware that he has any imperfection of his eyes, and frequently shows no symptom, except liking to shade his eyes against strong light. The opacity takes the form of a *sharply-defined circular disc placed deep in the lens between the nucleus and the posterior pole*. It is generally large enough to about block the ordinary—say 4 mm.—pupil; is always double; and, without exception, accurately symmetric in the 2 eyes. The earliest age at which it has been seen is 10 years and the latest 82, and the condition seems to be absolutely stationary.

Burton Chance also (Archives Ophthal., Vol. 36, 1907, p. 565) describes 5 members of a family affected by this peculiar and extremely rare form of cataract. I can find no other reference to this condition in American ophthalmic literature.

The cases here reported came to my notice because Hugh M., aged 9, was sent from school with a "defective vision" notice. Finding his condition typical of the published illustrations, I asked permission to examine other members of the family.

The mother, aged 37, shows faint margins of discoid opacities with dilated pupil. V=20/20 with glasses to correct slight myopia. John, aged 12, has convergent squint with vision of R.E. 20/50. L.E. 20/20 with glasses correcting slight hypermetropia; disc margins are slightly more notice-

able than the mother's. Catherine, aged 7, has numerous dots and striæ in the lenses, and more pronounced disc margins. Vision 20/30 not improved. Hugh, aged 9, typical complete discoid cataract with but 20/200 vision. Despite this poor distant vision he gets on well in school although obliged to hold his books close.

The report of the nominating committee was received from the Chairman, Dr. Elbert S. Sherman: For Chairman, J. Wallace Hurff; for Secretary, E. LeRoy Wood. At the suggestion of Dr. Donahue, Dr. Sherman made a motion, which was passed, that the chairman appoint a committee to consider and report on the various methods of treating tonsils other than surgical removal.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The Gloucester County Medical Society held its regular monthly meeting March 20, at the Woodbury Country Club.

The address of the evening was given by Dr. Gilbert J. Palen, of Philadelphia, who spoke on "Pathologic Conditions of the Ear with Special Reference to Diagnosis and Treatment". He was assisted by Dr. Carroll Haines and the x-ray man, Dr. Barker. Upon the screen was thrown the pictures of the results of this work. The address was interesting and profitable and much appreciated. Dr. Palen, who is well known in Woodbury, having lived here many years, is a professor at Hahnemann Hospital.

Delegates from the following counties were present: Camden, Dr. Emma Richardson; Salem, Drs. Church, Shepard, Aiken.

The members present included Duncan Campbell, Ralph Hollinshed, M. F. Lummis, I. W. Knight, W. J. Burkett, J. Harris Underwood, Chester I. Ulmer, A. B. Black and son, a student; Harry Nelson, W. R. Clements, James Hunter, O. R. Wood, Charles A. Bowersox, Paul Pegau, William Brewer, H. W. Sinexson, H. M. Fooder, E. E. Downs, B. A. Livengood and H. B. Diverty.

February Meeting

The members of the Gloucester County Medical Society were the guests of the General Staff of Jefferson Hospital in the new clinical amphitheatre February 28. The staff gave clinical reports of the hospital, followed by a free discussion; after which was given a special program arranged for the Gloucester County Society.

Dr. Austin Smith gave an address on "Incidence, Diagnosis and Treatment of Sinus Disease of Children".

Dr. Burgess Gordon gave an address on "Exercise—Its Influence on the Body Generally, with Particular Reference to Cardiac and Lung Diseases".

The next address was given by Dr. George Wil-lauer: "The Treatment of Varicose Veins by Injection". Then followed an address by Dr. Charles Lintgen, the subject of which was "Spinal Anesthesia—Its Present-Day Status".

All of these addresses were followed by free discussions which proved interesting and profitable to those present.

Among those attending from the Gloucester County Society were Drs. Duncan Campbell, James Hunter, Jr.; Ralph Hollinshed, Oran Wood, Chester I. Ulmer, Samuel Ashcraft, Frank Fisler, E. E. Downs, Wendell Burkett, William Pedrick, Fred Wandall, C. A. Bowersox, Paul Pegau, and H. B. Diverty.

HUDSON COUNTY

Edward G. Waters, M.D., Reporter

Meeting of the Hudson County Medical Society, March 4. The speaker of the evening was Dr. T. E. Lavell, of Bellevue Hospital, New York, whose subject was "Diagnosis of Ectopic Pregnancy" and represented a careful and detailed statistical review of 410 cases occurring in 17 years at Bellevue Hospital. In a majority, no preceding period of unusual infertility was reported, nor was there often a history of preceding severe pelvic inflammatory disease. The incidence of previous pregnancies approximated that of the married population of the given marriage group; however, a large number of these patients had been subjected to various pelvic operations, and while miscarriages did not precede in an unusual number, miscarriage followed by curettage did. Abdominal pain and vaginal bleeding are the outstanding symptoms. The pain is irregular, lancinating or colicky, and is subject to remissions; thereby differing from appendicitis and pelvic infections. Vaginal bleeding is usually irregular and scanty, with a history of a skipped period. Actual fainting, or its minor manifestation of sudden or transient weakness, was present in almost 60% of the cases. This symptom is pathognomonic and coupled with the 2 preceding symptoms, will establish the diagnosis in most cases. There is no elevation of temperature, pulse, blood pressure, blood count, or sedimentation test unless there is active or recent bleeding, or unless infection is present. Many symptoms commonly believed pathognomonic are rarely or infrequently met with; such as Cullen's sign, and the tender cervix, respectively.

The discussion of this very interesting and illuminating presentation of facts concerning "ectopics" brought out the fact that diagnosis, under the best of conditions, is difficult, excepting in those cases with early and frank hemorrhage and shock, where it is obvious. While all cases should be individualized, early operation is the routine unless the patient is quite shocked; then operation is delayed a couple of hours while the patient is being prepared by transfusion, intravenous therapy, and supportive measures. A few cases in the series were neglected ones with abdomen full of foul, infected blood clots, and were successfully treated as any similar type of peritonitis would be.

The paper was discussed by Drs. Kelly, Quigley, Swiney, Londrigan, Halligan, Miner, Brooke, Roberts, Lang, Waters, Reitnauer, Barbarito, Dodson and D'Acerno.

Bayonne Hospital Clinical Conference

Regular meeting held Monday, March 2, at 9.30 p. m., was called to order by Dr. Donohoe, Chairman; Dr. Shapiro, Secretary.

Dr. Luczynski reported cases from the service of Dr. Ferenczi.

(1) Female, white, aged 70, admitted February 4, for relief of swelling of legs and abdomen, increasing weakness, and growth on right breast. Swelling of both legs noticed about 2 months previously. General appearance, considering age of patient, was good. Teeth in poor condition. Lobulated hard mass situated on atrophic right breast, adherent to skin and underlying tissues; a reddened angry appearing area about size of a half dollar, covered to tip of mass; no tenderness; no fluctuation. Liver enlarged about 4 fingers below right costal margin; palpation nodular and slightly tender. Several days after admission right

hand became gradually edematous. During stay in hospital temperature ranged between 98° and 98.6°. Suddenly expired. Diagnosis: Carcinoma of right breast with visceral metastasis.

(2) Female, white, aged 73, admitted February 14, for relief of dyspnea, orthopnea, cyanosis, ascites and severe cough. Onset about 6 weeks ago, illness becoming progressively worse. Neck: marked pulsations. Chest: Apex fifth interspace 1½ in. to left of nipple line; no thrills; aortic and pulmonic sounds accentuated, of poor quality, rhythm regular; blowing systolic murmurs heard over entire precordium. Lungs; moist râles throughout both chests. Abdomen; moderate degree of ascites. Liver; enlarged 4 finger breadth. Spleen; not palpable. Extremities; moderate edema of both legs. Right leg and foot covered with dry scaly crusts. B.P. 166/90. Suddenly expired February 25. Diagnosis: Arteriosclerosis, chronic myocarditis, cardiac failure.

(3) Female, white, aged 55, admitted January 31, for relief of rash on face; the entire face, involving both eyes, also base of neck covered by a dry scaly erythematous, edematous lesion. Long alcoholic history—suggested by visitor—otherwise, history very indefinite. Heart sounds feeble, no murmurs, slight enlargement.

Patient began getting very restless 24 hours after admission, passing gradually into active D. T. stage with hallucinations and marked tremors. Became gradually worse, pulmonary edema developed, Cheyne Stokes respiration, death Feb. 8.

Dr. Frieman reported cases from the service of Dr. Ferenczi.

(1) Patient was a white married female of 32 who for about 1 month previous to admission was troubled with weakness in the legs, associated with sharp stinging pains in the feet; at times she would experience severe lancinating pains through entire body lasting for a number of seconds only, and she also had constant tremors of the entire body making her unable to perform house-work. For about 2 weeks previous to admission she noticed ankles and legs were becoming swollen. History of chronic indulgence in alcohol. Day following admission became delirious and so unmanageable that restraint was necessary. The following day symptoms became exaggerated and during the morning of the next day she expired in a state of circulatory failure. Diagnosis: Delirium tremens, with chronic alcoholism.

(2) White, married, female, aged 66, admitted on Feb. 19, in a state of coma with sudden onset while riding on a street car. Only positive history was that she was suffering with gall-stones for a number of years but no surgery was performed. No knowledge of having kidney disease, heart trouble or high blood pressure. No diabetic symptoms. Coma not deep. Patient reacting to very strong stimuli. Left third nerve paralysis as evidenced by presence of ptosis, dilatation of pupil without reaction to light, loss of all ocular movements except slightly outward. There was a total paralysis of the right upper extremity with a paresis of the right lower extremity, as latter could be moved passively on tickling the sole of foot. Sensations all over body intact. Reflexes: Biceps, Kernig's and abdominal could not be elicited; bilateral Babinski present; no ankle clonus. Wassermann, negative. On second day in hospital, temperature rose to 101°; pulse and respiration remaining unchanged, general condition also being the same. On third day she began to show improvement, going into a lethargic state from one of coma, beginning to talk and having a return of motor power in the lower extremities and of partial function of the upper extremities

on painful stimulation; later in the day she began to talk to and recognize individuals, together with a complete return of function of both extremities; the evidence of third nerve paralysis still remained, however. On the morning of the fifth day patient suddenly became worse, the temperature rose to 103.5°, pulse 100 and respiration 30, the whole right side of body became totally paralyzed. B. P. 142/70. The following 3 days general condition remained unchanged, temperature ranging between 100° and 102°. Pulse rose to 130 and B. P. dropped to 102/70; then to 90/70 and finally to 60/40; patient finally expired in a state of cardiac collapse. Diagnosis: Hemorrhage into mid-brain.

(3) The patient, a colored married woman of 20, admitted for the first time November 11, 1929, and discharged December 3, with a diagnosis of "pleurisy with effusion". On Jan. 12, patient was readmitted with symptoms suggestive of tuberculosis of lungs and with a five-month pregnancy; while in the hospital she was treated medically for the chest condition and was transferred to the maternity ward where labor was induced by insertion of a catheter and gauze-packing; that evening, Jan. 26, the patient insisted on going home, and after removal of the catheter she was discharged on release as unimproved. Six days later readmitted with a history of having aborted a fetus 2 days after leaving the hospital and was complaining of generalized abdominal pain, increase in size of abdomen, and a bloody, foul discharge from vagina, as well as her earlier symptoms of headache, fever, cough with hemoptysis, chest pains, embarrassed respiration, chills, loss of weight and malaise. Examination of the lungs showed signs of infiltration of apices with involvement of pleura. Heart dilated and sounds of poor quality. Abdomen markedly distended and tender throughout; liver palpable 5 fingers below right costal margin. There was a vaginal bleeding of foul odor with passage at times of clots.

Patient ran a septic temperature rising as high as 106°, pulse going up to 170, and respirations to 50. She became more toxic each day and on the fourth day in the hospital expired. An autopsy gave the following findings: Miliary tuberculosis of both lungs; tuberculosis of left pleura; bilateral salpingitis; pelvic peritonitis.

Dr. Ferenczi reported a case. Patient, male, white, age 18, admitted to hospital Feb. 9, with headache, abdominal pain, convulsion and going into coma. His condition was critical. On admission urine showed concentration, albumin and casts. Temperature 99°; pulse 90. Lumbar tap that day was cloudy under pressure; 40 c.c. of spinal fluid removed. Injected about 25 c.c. anti-meningococcic serum. Next day, still in a comatose condition. Injected 3 times intraspinally and once intravenously; 85 c.c. spinal fluid was removed and 55 c.c. serum given. After these taps he appeared less toxic and for the first time able to take fluids by mouth. The following day he showed greater improvement, and talking rationally appeared brighter and was able to recognize surroundings and individuals. Taps were reduced to once daily with an average of 20 to 30 c.c. fluid withdrawn from February 11 to 21. Toward the end of this period the tapplings were decreasing in amount and small amount of pus was obtained.

On February 21 Dr. Van Deesten was in consultation and upon his suggestion a cysterno tap in conjunction with a lumbar tap was done successfully; pus (thick) was obtained from both needles, and an attempt was made to wash out the spinal canal. No saline could be forced through the lower needle. From that day he was tapped

twice daily by cysterno method withdrawing about 40 c.c. spinal fluid and injecting 30 c.c. daily. The fluid became less thick in consistency but was still cloudy. After these tapplings he seemed to improve; would take nourishment fairly well until the last few days when intravenous injections of glucose with insulin had to be resorted to.

Temperature on admission 99° rose to 102.5° and fluctuated for 4 days between 100° and 102°, dropping to normal. The day prior to death his temperature dropped to sub-normal and quickly rose again to 101° and remained so for one day when he died. At the same time the pulse dropped from 126 to 86 and respirations from 30 to 20.

On admission, blood count 28,000; polymorphonuclears 92%; reds normal; whites always showed a high leukocytic count. Urinalysis negative except for trace of albumin and few pus cells. Spinal fluid on admission was very cloudy; absent sugar reduction. Marked globulin reaction. 3300 cells per cm. and about 90% polymorphonuclears. Fluid was under increased pressure; microscopically very many Gram-negative diplococci intracellular.

Expired February 27.

Clinical Society North Hudson Hospital

J. Africano, M.D., Reporter

The regular monthly meeting of the Clinical Society was held Tuesday, March 11, with Dr. J. Stein acting as Chairman. The Hospital Report for the month of February was read by Dr. Tanert: total discharges, 289; deaths 19, of which 9 were medical, 5 surgical, 3 pediatric, 1 E.E.N. & T., and 1 new-born; 9 autopsies.

Dr. Klaus called attention to the plan of the Gilbert Acceptance Corporation of New Jersey, applying the principle of installment buying to illness and dentistry; and Dr. Stein announced that the Association of Physicians' Wives would have an entertainment night, Wednesday, March 19, at the Elk's Club, and that the Staff is cordially invited to participate.

The following cases were presented by members of the Staff:

Coronary Thrombosis Syndrome in a Case of Pulmonary Tuberculosis

Dr. Pearlstein

Mrs. S. P., age 53, admitted Feb. 7, complaining of pain over the precordium, a feeling of impending death, and shortness of breath. While taking a bath, had a sudden attack of sharp pain over the lower end of the sternum, accompanied by marked dyspnea. Patient was cyanotic, dyspneic and crying because of pain; pulse feeble and irregular; blood pressure unobtainable and heart sounds did not come through; percussion note over lungs resonant; breath sounds vesicular with scattered areas of bronchovesicular and bronchial breathing; moist râles heard throughout lungs; heart irregular in rate, rhythm and force. Diagnosis of coronary thrombosis was made. Patient given morphia and atropin and put to bed.

The next day examination revealed fine crepitant râles at both apices, most marked on the right. The heart was enlarged to the left, the apex beat in the sixth interspace, outside of the midclavicular line; sounds of fair quality, regular in rate and rhythm, and free from murmurs. The diagnosis at this time was pulmonary tuberculosis and myocarditis.

Patient's course in the hospital was subequently uneventful. Blood pressure 158/114. Râles at the right apex persisted. Roentgenogram re-

port read: "Heart increased in the left, right and oblique diameters. Hili increased. Lung markings increased in number, size and density, reaching periphery and apices; lower lobes hazy. Conclusions: Heart pathology with its sequels." Thinking that perhaps the increased lung markings were due to hypervascularization, the patient was placed on digitalis for 1 week and radiograph was again taken. The findings in the apices were more clean-cut and the report returned was chronic fibroid phthisis.

Temperature on admission was 98°; rose to 103° on the second day; then fell to 100° and varied between normal and 100, there being a regular afternoon rise.

Patient was allowed out of bed on the twelfth day and discharged on the fifteenth without having had any recurrences of the pain.

Discussion

Dr. Pearlstein stated that a true angina pectoris would have to include pain on exertion, and relief after rest and nitroglycerin. This was not a case of coronary thrombosis because the findings were not typical of acute myocardial failure, as the râles were heard at the apices and not at the bases, and the heart sounds were of good quality; there was temperature, but no leukocytosis. Though the heart was enlarged, it was probably due to a past hypertension and not to cardiac dilatation; also a precordial pain of whatever radiation is not always indicative of cardiac or arterial disease; instead almost anything may simulate angina pectoris or coronary thrombosis; in this case, pulmonary tuberculosis was the cause of the symptoms which simulated coronary disease.

Dr. Justin agreed that the history in this case was not typical; the relief obtained after 1 day's stay in the hospital also was against coronary thrombosis; these cases usually terminate suddenly, or if a smaller artery is blocked, may persist for hours or days; occasionally the fatal termination may be due to the formation of a cardiac aneurism which has ruptured.

Dr. D'Acerno said it would be difficult to differentiate between angina pectoris and coronary thrombosis. The only way to explain a recovery from a coronary thrombosis would be the establishment of a quick collateral circulation of the other small arteries; it is easier in this case to attribute the symptoms to the presence of a fibrotic phthisis.

Dr. Martzowka cited a case of coronary thrombosis with typical symptoms; his patient described the precordial pain as if someone were driving a nail through his chest; the blood pressure was 210/140 and the patient succumbed within 18 hr., following some slight exertion.

Carcinoma of Stomach with Metastases to Liver

Dr. S. Braunstein

A. H., male, aged 71, bartender, entered the hospital Jan. 18, complaining of edema of the ankles, loss of appetite, and constipation of 1 week's duration. Did not recall ever having been ill before. Lungs clear except for a few râles at left base. Heart not enlarged; sounds of poor muscular quality, regular in rate, rhythm and free from murmurs. Abdomen markedly distended. The liver was enlarged, reaching 5 cm. below the umbilicus and well over to the left; surface was felt to be very nodular, with slight tenderness. Patient was allowed out of bed after 10 days and was out to the bathroom a few hours before death, which was apparently due to myocardial failure.

Admission diagnosis was hypertrophic stage of

atrophic portal cirrhosis and chronic myocarditis. Later, echinococcus cyst, malignancy, and lues were put down as possibilities. Stool examination was negative for ova and parasites. Repeated blood counts failed to reveal an eosinophilia. Wassermann was negative. Autopsy revealed a carcinoma of the posterior wall of the stomach with many metastases to the liver.

DISCUSSION

Dr. D'Acerno asked whether gastric analysis showed lactic acid and Boas-Oppler bacilli?

Dr. Pearlstein answered this was not done, but these bacilli only appear when the motility is decreased.

Dr. Broeser explained that an erect x-ray plate is much more apt to visualize defects than one in prone position; in this case no defects appeared in the erect plate, but the bismuth was scattered in the prone view, which is somewhat suggestive of malignancy; by means of fluoroscopy the patient may be put in an oblique position and a defect brought out.

Dr. Stein called attention to the importance of autopsy. This patient, despite careful examination and study, would have been signed out as a liver cirrhosis but for the autopsy.

Serum Treatment in Lobar Pneumonia

Dr. Barasch

W. G., male, aged 23, entered hospital 2 days after onset of a typical left lower lobar pneumonia, acutely ill; temp. 103.8°; pulse 132; resp. 28. Following sponge bath, the temperature fell to 99°, but shortly thereafter rose to 104°. Routine pneumonia treatment was instituted, but in spite of the greatest diligence on the part of nurses, the patient's temperature remained high. At about 10 p. m. of the sixth day of illness, patient had a chill, following which his temperature rose to 106.8°. Examination revealed signs of extension to the right lower lobe, and the next morning he had a full blown right lower lobe pneumonia; the left did not show signs of resolution.

A blood count done on the day of admission revealed 18,500 W.B.C. and 90% polys. Sputum yielded a pure culture of Type II pneumococcus. At 4 p. m. of the seventh day of illness, patient was given 20,000 units antipneumococcic serum; same dose was repeated 21 hours later. That night patient had his crisis and 24 hours later his temperature was down to normal. Signs of resolution were present in the left lung on the day next after the second dose of serum. On the twelfth day, after admission, the left lung was clear, but all the signs of consolidation persisted on the right side. On the fourteenth day, or the eighth day following involvement of the right lung, râles began to appear at the right base, and 4 days later the chest was clear. Patient was discharged as cured 20 days after admission. The course that the patient ran demonstrates very well, in my opinion, that serum combats the toxicity of the disease and secondarily the local pathology.

DISCUSSION

Dr. Justin stated that the results would have been more striking if the serum had been given a little earlier; a third dose was not given as the patient had improved very much clinically; no complications occurred, instead, a perfect recovery.

Dr. Luippold warned against drawing conclusion from one isolated case.

Cholecystectomy Complicated by Bile Leakage; Peritonitis

Dr. Eckert

S. F., female, white, aged 36, entered the hospital Feb. 11, complaining of pain in the epigastrium and vomiting; for the past 10 yr. has had similar attacks. The pain was paroxysmal and tearing in character, radiating from the gall-bladder area to the back. Nausea and vomiting accompanied these pains. Physical examination was negative except for the abdomen. There was tenderness and slight rigidity over the gall-bladder area but this organ was not palpable. Temperature normal.

Laparotomy showed the gall-bladder somewhat distended and stones were palpable. The gall-bladder was freed from the liver and cystic duct, and artery ligated with a double chromic catgut ligature; cigarette drain was inserted to the stump, the raw surfaces of the liver peritonealized and the abdomen closed. For 10 days, the postoperative condition was excellent; during this time, there was a profuse mucoid and bile-stained discharge from wound, necessitating frequent voluminous dressings; stools were very light yellow in color and often clay-colored. On the evening of the tenth day the patient complained of headache, pains in the abdomen and vomiting. The next day her condition became worse and temperature rose to 100°. Emesis became very frequent and vomitus was brownish in color; pulse rapid and weak; skin cold and clammy. In spite of all kinds of supportive measures and stimulation, the patient expired.

An autopsy report was: "Upon opening the abdomen, the viscera are found to be bile-stained, as are the mesentery and omentum; about 500 c.c. bile-stained purulent fluid in the peritoneal cavity. The intestines not adherent but the peritoneum dull and injected. At the site of the gall-bladder, which had been removed, a large clot which on section extended into the liver substance for a distance of 1 cm. No signs of the cystic duct found. The common duct intact; ampulla patent and a small stone in the duct near its opening."

In this case, leakage of bile from the cystic duct doubtlessly caused the peritonitis.

DISCUSSION

Drs. Lange and Klaus, who saw this patient in consultation with Dr. Sweeney, agreed that, although the patient was suffering from a peritonitis, her condition was so critical that any immediate surgical interference was distinctly contraindicated.

Dr. Klaus stated that the source of peritonitis coming on about 9 days after operation was due either to bile leakage or infection from the original operative area, as it must be remembered that the gall-bladder was found at operation to be infected. In fact, the picture appeared as possibly one of infection within the lesser peritoneal cavity. Peritonitis from bile leakage appearing at such a late date, seemed impossible unless from a necrosis of the common duct with leakage into the general peritoneal cavity. The autopsy showed death due to peritonitis from leakage of bile, yet after a most careful dissection of the bile ducts, no perforation or opening could be found to account for leakage into the general peritoneal cavity. Inasmuch as the common and hepatic ducts were normal and intact, the only explanation plausible for the bile leakage seems that the ligation on the cystic duct opened and that the newly formed adhesions about it and the operative area broke loose, possibly by exertion on the part of the patient with resultant leakage into the peritoneal

cavity. For protective adhesions to break after 10 days is not usual following cholecystectomy, yet I have noted it following gastrostomy 2 weeks after operation, while the patient was still in bed, in which instance the gastrostomy tore loose from the abdominal wall.

Dr. Lange said that if one applied a clamp to the common duct, bile leakage could not occur till it sloughed, and this would take time; he suggested also, perforation of the duodenum, but the duodenum was found to be normal at autopsy.

Acute Diffuse Glomerular Nephritis with Anemia and Pneumonia

Dr. J. M. Stein

W. B., female, white, aged 5, admitted Feb. 10. The chief complaints were nose bleed, edema of the eyelids, edema of legs, fever, cough, vomiting, oliguria and discharging left ear. On Jan. 31 mother noticed edema of the feet; 3 days later, edema of the eyelids. On Feb. 4 patient had fever and discharge from the left ear. Vomiting and marked diminution in quantity of urine followed. On Feb. 9, a nose-bleed began, which could not be controlled by the ambulance surgeon.

Physical examination revealed a face edematous and pale. Pupils normal. Ophthalmoscopic examination negative. Nose had been packed. Right ear discharging. Left drum bulging. Heart: systolic murmur at apex; dullness on percussion over both bases. Bronchial breathing on left side over limited area. Some crepitant râles were heard on left side posteriorly. Abdomen: slight distension; liver slightly enlarged. Moderate edema of both legs. Blood pressure 115/65; temp. 105°; pulse 150; resp. 50. Blood count on admission: Hb. 45%; R.B.C. 3,660,000; W.B.C. 12,800; polys. 76%. The anemia grew progressively worse and before death, the Hb. was 27% and R.B.C. 1,900,000. Three days before death, the N.P.N. was 100 and creatinin 3.8. The urine showed 6% albumin and many R.B.C. and casts. Later the urine showed slight decrease of these pathologic constituents.

The fluid intake was 2-3 times the output. She had watery stools. On Feb. 17, the left ear drum was opened; purulent discharge was present. On the next day, the edema of the extremities had disappeared. Signs of pneumonia on the right side were present. The patient was restless and irritable; toward the end she was stuporous and incontinent. She had a number of moderate hemorrhages from the nose. The patient had generous amounts of fluids, ranging from 500 to 1500 c.c. daily. On 2 occasions was given glucose solution by clysis. The temperature varied between 100° and 105°.

This case presented difficult problems. The severe anemia would ordinarily be an indication for transfusion, but the severe nephritis prohibited this measure. The presence of an extensive pneumonia with its additional toxemia was, no doubt, the deciding factor in the fatal termination. It is my impression that, were it not for the presence of the pneumonia, the patient would have made either a partial or complete recovery from the nephritis in spite of the anemia, which probably would have responded to treatment with iron in some form. The nephritis was secondary to the otitis or to an antecedent streptococcus infection of the throat.

DISCUSSION

Dr. Tidwell stated that the previous history for 6 months in this child should prove very interesting and enlightening, but her mother insisted that she was well until a few days before

admission to the hospital; the patient seemed to recover from the kidney condition, but this combined with the ear infection and the pneumonia was too much for the patient.

Dr. D'Acerno believed that, in spite of a negative blood culture all the manifestations could be explained on the basis of a general septicemia.

Dr. Dalven brought up the question whether or not transfusion would have been advisable, some seeming to do better, others dying following it.

Dr. Stein asserted that the original focus of infection in such cases may be obscure; the severity of the anemia may be accounted for on the basis of the hemorrhage; a transfusion would have been unwise as it would have added an extra burden to the kidney.

Ileocolic Intussusception in Infancy

Dr. Dalven

M. V., female child, aged 10 months, admitted Feb. 19, with complaints of sharp pains in the right and left lower quadrants, frequent vomiting, constipation, and blood in stools; symptoms began 2 days prior to admission and became progressively worse.

Physical examination was negative except the abdomen presented a sausage-shaped mass in the left lower quadrant extending toward the right for about 4 in. Marked tenderness and rigidity over the left side. Temp. 100.6°. W.B.C. 17,300; polys. 82; lymph. 18.

The intussusception was reduced at operation by pressure at the apex and gentle traction on the ileum. Temperature rose to 105.4° immediately after operation; since then it has gradually been coming down; at present it is normal. The patient's course was uneventful except for a small subcutaneous wound infection.

Intussusception constitutes one of the most frequent forms of intestinal obstruction in children. Over half of the cases occur in the first year of life and most of the remainder in the second year. It is unusual in the first 3 months, but has been seen as early as the second day. The condition is from 2 to 3 times as common in females. The occurrence of diarrheal conditions occasionally predisposes, as do constipation and colic, but in most instances it develops in perfect health.

DISCUSSION

Dr. Klaus stated that in this case the diagnosis was simple, the mass being felt in the left lower quadrant; at operation the mass was found to be an invagination of the ileum through the ileocecal valve, and by pressing it at the apex, it receded for ½ the distance, then by means of traction on the small intestine and more compression, it was reduced completely.

Dr. Tidwell agreed that surgery is always indicated, though he has seen a few cases apparently cured by hydrostatic pressure.

Dr. Stein cited a case which he reduced by means of water at a level of 2 ft., keeping the patient under a light anesthesia—this method was used as the case appeared to be a mild one and only a few hours old.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Secretary

The Mercer County Medical Society met in the Carteret Club, March 12, with President Vaneman in the Chair.

Following the reading of the minutes of the February meeting, Dr. J. A. Morrell, of the E. R. Squibb & Sons Research and Biological Laboratories, was introduced and gave a very interesting ac-

count of "Recent Advances in Our Knowledge of the Female Sex Hormones".

Dr. Morrell illustrated with motion films the plant process and physiologic testing being done in the laboratories. A most interesting résumé of the work accomplished since 1912 was detailed in the remarks of Dr. Morrell.

Dr. Purcell reported that a complete registration in the Postgraduate Course in Medicine had been accomplished and that 2 more names were required in Surgery. (Since this date, both medicine and surgery courses have more than full quota.)

Several applications for membership were read and referred to the Membership Committee.

Dr. Phillips presented the following motion, which was passed:

"I move that the President appoint a committee of 5 members of the Mercer County Medical Society, to be known as the Public Relations Committee. The purpose of said committee to be the furtherance of the material welfare of the medical profession. They shall coöperate with other similar committees throughout the state and nation. They shall meet not less than once a month and oftener if circumstances require it. A majority of the committee shall constitute a quorum for the transaction of business."

Following a very thorough discussion of the subject the President stated that the appointment of such an important committee required serious thought, and that he will announce the membership at a later date.

(Through some error in process of transmission the following resolutions, adopted at the February meeting of the Mercer County Medical Society, did not reach the Editor along with the regular report for publication in the March Journal.—Editor.)

The New Jersey State Medical Society was organized as a voluntary association for mutual improvement and for promoting the welfare of the medical profession, incorporated under an Act of the State of New Jersey, for the purpose of regulating the practice of medicine and surgery in this state.

One of the outstanding purposes of the Society is to elevate professional standards, and in general to render this profession most capable of serving humanity, safeguarding the material interests of, and promoting friendly relations among members of the medical profession.

With this aim in view, a liberal interpretation of membership requirements and a charitable attitude toward applicants should be advocated, however, bearing in mind that improper conduct carries with it the stigma of disrepute.

In the Principles of Medical Ethics of the A. M. A. will be found the statement: "The practice of Medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals."

The selection, appointment, or election of a member of the medical profession to an official position of supervision, under county, municipal, or state government, the salary, maintenance and other prerequisites being fixed by law, is attended by certain fundamental requirements.

The incumbent of such an office should bear in mind his duty and obligation to the welfare of that position, as being paramount to every other issue, and; secondly, his obedience to ethical conduct in his professional practice toward his fellow practitioners.

Therefore, be it moved: That on and after December 1, 1930, any member of the Mercer

County Component Medical Society who holds a full time State, Municipal, or County position, with full or partial maintenance, or any member who holds a part time State, Municipal, or County position, with full maintenance, and at the same time is engaged in the private practice of medicine and surgery shall be no longer considered a member of the society.

MIDDLESEX COUNTY

William C. Wilentz, M.D., Secretary

The regular monthly meeting of the Middlesex County Medical Society was held March 26, at the Middlesex General Hospital in New Brunswick with Dr. Brown presiding. The minutes of the last meeting were read and accepted.

Membership committee's report on the application of Dr. Wright, of Metuchen, was accepted by the members and she was elected a member. The applications of Drs. Morris and Kler were referred to this committee.

Communications from the A. M. A., relative to the list of hospitals in the county, were read and the letter from the state society, relative to the correct list of names to be entered under the title of physicians in the telephone directory, was read.

There was considerable discussion concerning the question as to whether or not the society should hold meetings monthly or quarterly and the possibility of changing the hour. On motion of Dr. McGovern, it was decided that a questionnaire be sent to all the members asking their advice in this matter. An amendment to the effect that a return card be enclosed for the answers was made by Dr. Hoffman and was likewise passed.

Dr. McBride was next introduced and he advised the society to continue monthly meetings, attend the postgraduate course, have local physicians read papers at the meetings and combine hospital meetings with county meetings.

Dr. Morrison, our next speaker, also endorsed the monthly meetings. In explaining the added cost to membership in the state society, a clear detailed résumé of the activities of the society was given, such as increased office force, increased size and expense of the Journal, secretarial conferences, Tristate Conferences, program of public health lectures, salaries and added expenses at the state conventions.

The meeting was then adjourned on motion.

Medical Section of Rutgers Club

John H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Friday evening, March 14, at the Bound Brook Inn, Dr. Schureman presiding. There were present about 30 members, friends, and guests.

Before the business procedure the Chairman introduced Mr. Brines, of Rutgers University, who spoke of the proposed medical and surgical postgraduate courses to be held for members of the county society.

There being no business to transact, the speaker of the evening was introduced. Dr. Ralph Pemberton, of the Presbyterian Hospital of Philadelphia, presented a very profound and instructive talk on "Chronic Rheumatoid Arthritis", which was illustrated with slides. The impression left was that one must have a conception of the terminology of this disease; i. e., the difference between hypertrophic and atrophic arthritis; that this very common disease does not receive the publicity and consideration that it should, from an

economic basis alone, as compared, for instance, to the consideration shown diabetes. Dr. Pemberton illustrated very clearly the pathology of arthritis, and impressed that while arthritis was localized in the joints, it must be considered that it is a constitutional disease affecting many of the tissues of the body. He also stressed the important fact that while many theories and scientific studies have suggested the cause of the pathology incapacitating the individual, it involves practically all the physiologic processes which have to do with the normal function of the joints and of the body, including bacteriology, chemistry, physiology and pathology. Dr. Pemberton stressed the point of focal infection, but warned that this was not the whole story.

The treatment is prolonged, and consists of correction of all of the defects of the body; rest; diet, especially in arthritis associated with a long, large, twisted intestine; localized heat and massage, and vaccines.

Free discussion was participated in by the members.

After the meeting, the gathering was entertained by Drs. Gruessner, Gutmann, Haywood, and Haight.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A regular quarterly meeting of the Morris County Medical Society was held the evening of Thursday, March 13, at the Elk's Home in Dover. President Collins presided with an audience of about 40 members and guests.

After being read by Secretary Lathrope, the minutes of the regular meeting held December 10, 1929, and a special meeting of February 24, 1930, were unanimously approved. The proceedings of the executive committee were also read by the Secretary and included the announcement of a special meeting to be held April 16, the speaker to be Dr. Walter Timme, of New York, on some subject relating to the "Endocrine Glands"; also that Superintendent Marcus A. Curry had offered to the society the facilities of the State Hospital at Greystone Park for any meetings or in any helpful way that the society wished.

The report of the Treasurer showed a balance of \$1420 in the bank, and out of 81 members 74 have paid their dues.

Four new members were unanimously elected to the society; these being Albert J. Ward, of Morristown; Charles L. Blanchard, of Dover; D. Stanley Teskey, of Bernardsville; and F. H. Seward, sage, and vaccines.

A nominating committee was appointed for recommendation at the June meeting of officers to be elected at the Annual Meeting in September; this committee is composed of Drs. Costello, Sherman and Thomas.

Dr. Costello, for the committee appointed to confer with Secretary McEwan of the Morristown Chamber of Commerce with reference to their "Credit Bureau", made a lucid report on the way the system operates; that in order to use the Credit Bureau one must be a member of the Chamber of Commerce and outlining the method of the society joining as a group; that the committee felt it would be unwise for the society to go into this as a group, and recommending to the members of the society who wished to join that they look into the matter through their nearest town Chamber of Commerce; that the committee's conclusion was that the Chamber of Commerce Credit Bureau was a much better proposition than the usual collection agency.

Professor Morton, of Rutgers University, addressed the members with reference to post-graduate courses, for the benefit of those who were not present at the recent special meeting that he addressed. President Collins supplemented Professor Morton by urging those members who wished to take the courses to take the necessary steps promptly as the time was very short when the matter should have to be in definite shape.

Secretary Lathrope reported on a communication from Mrs. Foster, expressing appreciation of the society's tribute to Dr. George H. Foster. The Secretary also spoke on the circular letter sent out by Dr. Paul Keller, of Beth Israel Hospital, Newark, urging support of Senate 117 providing for a hospital lien on an award in accident cases.

Secretary Lathrope also referred to a letter he had sent out to the members asking for certain data and that he had heard from all but about 18 or 20; such data being necessary to the establishment of a proper and adequate card index of the members.

"Some Principles of the Treatment of Diabetes" was the subject of a paper read by Dr. Henry M. Larson, of Morristown, and "Surgical Aspects of Diabetes" was presented by Dr. Inglis Folgar Frost, of Morristown. Both papers held the undivided attention of their listeners and the authors were highly complimented on their good work of preparation and presentation. Both papers have been submitted for publication in the Journal. The papers were very interestingly discussed by Drs. Haven, McMahon, Young, Lathrope, Mial and James.

At the conclusion of the discussion, President Collins announced that to his mind this March meeting conducted by our members has always proved the most interesting of the year and tonight was no exception; and extending to Dr. Larson and Dr. Frost grateful appreciation for the excellent manner in which they acquitted themselves.

After adjournment a very inviting and adequate supper was greatly enjoyed.

OCEAN COUNTY

Dr. V. M. Disbrow Honored on Golden Anniversary—Fellow Physicians Pay Him High Honor Upon Completion of Half Century of Practice

Fifty years ago last Tuesday, Dr. Vanderhoef M. Disbrow, of Madison Avenue, began the practice of medicine. Through storm and sunshine; on foot, by horse and buggy, or driving a comfortable automobile as is now his wont, Lakewood's oldest physician has ministered to the bodily ailments of a host of patients and many times offered solace to the grieving spirit as well.

Fellow physicians in the county, state and nation joined in remembering the local doctor's golden jubilee of professional service at a surprise dinner at the Laurel-in-the-Pines, Tuesday evening. The anniversary dinner was tendered him by the Ocean County Medical Society.

The anniversary dinner was a complete surprise to Dr. Disbrow. No inkling of the nature of the function was given until Dr. Adolph Towbin, president of the county association, after dinner had been served, arose and in a brief address offered the honored guest the felicitations of his fellow physicians. At the conclusion of the address, Dr. Towbin presented Dr. Disbrow with a beautifully hand-embossed copy of the following resolution: "Whereas Dr. Vanderhoef M. Disbrow, a member of the Ocean County Medical Society, has now

engaged in the practice of medicine in Lakewood and vicinity continuously for the past 50 years, and it is the desire of his associate members to give him this formal tribute; therefore, be it resolved that members of the Ocean County Society congratulate Dr. Disbrow upon his long and faithful devotion to the practice of his profession, and hereby convey to him the sincere assurance of their warm regard for him and their profound respect for his acknowledged ability and high ideals in his chosen profession; and be it further resolved that it is the earnest wish of his associate members that he may long continue in the active practice of our profession."

Dr. Towbin then read a letter from a former collegemate of Dr. Disbrow at the University of Vermont, Dr. J. N. Jenne, the dean of the College of Medicine of the University of Vermont.

Dr. William Gerry Morgan, of Washington, D. C., President-Elect of the American Medical Association, sent the following greeting by letter: "I



Vanderhoef M. Disbrow, M.D.

want to congratulate Dr. Disbrow upon rounding out such a notable period of devotion to the welfare of his community. Dr. Disbrow's influence in state, and even in national medical interests has been reaching and beneficent to a high degree."

Governor Larson sent the following personal greeting to the guest of the evening. It read:

"My dear Dr. Disbrow: It is given to few of us to establish such a record of service to humanity * * * You have brought relief and happiness to countless homes in the last half-century * * * It is my great privilege to join with your friends in extending my felicitations and congratulations upon the unique anniversary."

Dr. Disbrow was visibly touched by the evidence of the esteem in which he is held. He said he was totally unprepared to offer a response. The

speaker said, however, that his thoughts at the moment were best expressed by a part of a valedictory address made by the late Professor Gundry, of Baltimore. Dr. Disbrow learned this when a very young man and had often repeated it.

VALEDICTORY ADDRESS OF PROFESSOR GUNDRY

A doctor's life, is to be day and night
At the beck and call
Of men who cheat and women who lie
To have our knowledge the scoundrels live
And see with sorrow the dear ones die
To be laughed to scorn as a man who fails
When nature claims her terrible debt
To bring a mother her first-born smile
And leave the eyes of the husband wet
To face and brave the scandal and stuff
That goes about through a country town
To be called to attend hysterical girls
And live all terrible scandal down
At night to read in books
To hear of new diseases and human ills
To work like a slave for weary years
And then to be cursed when you send your bills.
But stop! Don't be too hard on those
Who cannot afford to pay
For nothing you'll tend the widow and child
For nothing you'll work till night turns to day
You hear confessions and keep them safe
Like a sacred trust of a righteous priest
Who are not sworn to do your duty
As others must be in this world of woe
But to hasten away to beds of pain
Through rainy days and night of snow.

A delegation from the Monmouth County Medical Society was in attendance at the dinner. The president of that body, Dr. Fisher, of Asbury Park, made a speech and Dr. Featherston read the minutes of a meeting of the society 40 years ago, when Dr. Disbrow was president of the organization. The Monmouth County Society presented Dr. Disbrow with a beautiful basket of roses.

Dr. McBride, of Paterson, President of the New Jersey Medical Society, was present and offered his congratulations, stating that Dr. Disbrow had always taken an active interest in state medical matters.

Dr. Morrison, Secretary of the state organization, Dr. Reik, of Atlantic City, Editor of the New Jersey State Medical Journal, and Dr. Newcomb, Burlington County's representative in the state legislature, were among those present, as were several members of the Woman's Auxiliary of the Medical Society.

Dr. Disbrow comes from a family in which every male member has been a physician. He is the youngest son of the late Dr. S. M. Disbrow, of Alaire, where the local physician was born. He is the last of 5 brothers, each of whom were physicians. Dr. Disbrow's only son, Dr. Harold Disbrow, of Lakewood, is considered one of the leading surgeons in the state.

After graduating from the University of Vermont, Dr. Disbrow took up the practice of medicine with his father and for 16 years maintained his home in Farmingdale. Much of his practice brought him to Lakewood, where his father had a large number of patients; 34 years ago Dr. Disbrow moved his family to Lakewood, where he has made his home ever since.

Fifty years of service has neither dimmed the eye nor dampened the enthusiasm of Dr. Disbrow for his profession. He displays the vitality of a younger man and enjoys excellent health.

PASSAIC COUNTY

Frank W. Ash, M.D., Secretary

The March meeting of the Passaic County Medical Society was held at the Valley View Sanatorium, Preakness, New Jersey, on Thursday evening, March 13, 1930. Dr. James P. Morrill presiding. There were 100 members present.

The regular order of business was suspended and the meeting was dedicated to Dr. Orville R. Hagen as an attempt on the part of the society to express its appreciation for his efforts to improve the care received by those afflicted with tuberculosis in this county.

Dr. Morrill, as President of the county society, thanked the Board of Managers and Staff of Valley View Sanatorium for the opportunity of holding this meeting at the new sanatorium. Dr. Morrill stated that it was especially pleasant to open this meeting at Valley View and dedicate it to Dr. Hagen. Dr. Morrill then asked Dr. Todd to give a history of the development of tuberculosis work in Passaic County.

Dr. Francis H. Todd, President of the Board of Managers of Valley View Sanatorium, spoke as follows:

"I wish to bring to your attention the fact that this institution, built for and by the people of Passaic County, has had as its great impetus practically one man, Dr. Orville R. Hagen. In July 1905, when he came to this county as a young intern, and later engaged in the practice of medicine, he saw the need for organizing anti-tuberculosis work, and he has directed his energies toward this end.

In going over some old papers, I recently examined the report of the Third Annual Meeting of the Charity Organization Society in Paterson. I found that in 1905 the first committee met to draw plans and urge the Board of Health of the city to erect a Tuberculosis pavilion at what was then the Isolation Hospital. Dr. Hagen served on this committee, and as the progress of the work of the committee was not particularly rapid, the committee was re-organized in 1908 with Dr. Hagen as one of the first directors. The report further states that before this re-organization, patients suspected of having tuberculosis were examined by Dr. Hagen in his office without charge if the patient was unable to pay. The first tuberculosis clinic in the county was held at 11 Ward Street, Paterson, in 1908, with Dr. Hagen as the clinic physician. There were many difficulties in the operation of this clinic. The building was an old ramshackle building, and in winter the heating system was very inadequate. It was often necessary for Dr. Hagen to wear his overcoat while making examinations, and for the patient to be draped in a blanket instead of a sheet. The clinic moved successively from 11 Ward Street to 66 Cross Street, to Slater Street, to Paterson Street, to Clark Street, and finally to the Board of Health at Mill and Passaic Streets, where it is now conducted on a regular schedule by the Valley View Staff. Dr. Hagen was in charge of the clinic during this whole period of 25 years. When the clinic started, there were 2 sessions per week, meeting Tuesday and Friday from 2 to 4 p. m. Later in 1917 a children's clinic was added on Saturday morning; Dr. Hagen also serving in that clinic, and, I might add, receiving no stipend.

The Tuberculosis Association advocated nutrition classes in the public schools, and Dr. Hagen gave over his time to insure the establishment of this much needed procedure.

In 1919 when the need for a camp for under-nourished children was established, such a camp

was organized by the Paterson Tuberculosis League. Although funds were very inadequate, the camp was in operation for 2 summers. During that entire period Dr. Hagen visited camp daily, and also examined every child who was admitted to camp during the period of its operation.

The Tuberculosis Association felt that during the time it was operating the clinic service, this should have been carried on by the official agency of the Board of Health. Finally, through the influence of Dr. Hagen and men whom he interested in this idea, the Board of Health assumed responsibility for the tuberculosis clinics in 1924. When the clinics were taken over officially by the Board of Health, it was Dr. Hagen who saw the need for anti-tuberculosis activities in the mills of Paterson and it was under his direction that an Industrial Service was organized in the industrial establishments of the city. He exerted an active interest and a guiding hand in the establishment of Camp Christmas Seals which functioned at Lambert's Castle for 4 years, and which this year will be moved to the Valley View property.

The need for a sanatorium for Passaic County was seen by Dr. Hagen and his associates as far back as 1905. After 7 years' effort, they succeeded in having established at the Isolation Hospital a pavilion that would accommodate 16 patients. At that time in the city of Paterson alone there were over 200 deaths from this disease.

The Tuberculosis Association, of which Dr. Hagen was a Director, appeared before the Freeholders of Passaic County on numerous occasions, urging the erection of a county sanatorium. The Passaic County Medical Society passed such a resolution in 1919, at the instigation of Dr. Hagen. After the resolution from the county medical society was presented to the Freeholders, a committee was appointed to select a site for a county tuberculosis hospital. Dr. Orville R. Hagen was chairman of that committee.

Under Dr. Hagen's direction this committee scoured the county for possible sites, and, after careful consideration, finally selected Valley View as the site for the proposed county sanatorium. The Freeholders moved slowly in this matter and it was not until 1924, when Dr. Hagen, as a Director of the State Tuberculosis League, and as a member of the Passaic County Medical Society, arranged for a dinner at which the pressing need for a sanatorium was to be discussed. This meeting which was attended by 200 persons, brought the question forcibly to the attention of the Freeholders, and action was speeded for the erection of the institution. Plans were drawn by Mr. Frederic W. Wentworth, and, at the instigation of the Board of Directors of the Paterson Tuberculosis League, the National Tuberculosis Association furnished a consultant to work with the architect in the development of plans for the sanatorium. Finally, in December, 1926, a Board of Managers for Valley View was appointed by the Board of Chosen Freeholders. This Board of Managers, of which Dr. Hagen was President, organized immediately after being sworn into office. The Institution at that time had not been completed, and the Board, of necessity, studied the plans with great care. Although it was not their responsibility to construct the Institution, they felt that any constructive changes which might be suggested for the care of patients might be welcomed by the Board of Freeholders. During this preliminary period the Board of Managers visited many institutions in New Jersey and New York to study their organization, their equipment, and their plan of operation. After careful consideration of the equipment in other institutions, the

Board of Managers, under the direction of Dr. Hagen, its President, drew up detailed specifications of all the equipment for this institution. After the equipment was delivered, an organization was developed and the first patients were admitted on March 1, 1929. The infirmary unit to the Hospital was full in August 1929. The 2 semi-ambulant wings were added, and at present there are in the institution 170 patients.

This institution is due more to the efforts of Dr. Hagen than any man in Passaic County. As a result of his efforts we have this splendid hospital, which in personnel and equipment is the leader of any 200 bed tuberculosis hospital in the United States. Dr. Hagen is keen about the institution now, as formerly. He has been a leader in choosing the staff, and in getting the place organized."

Dr. Morrill then asked Dr. Andrew F. McBride, President of the New Jersey State Medical Society, to speak. Dr. McBride spoke as follows:

"It is fitting and appropriate that we, the members of the Passaic County Medical Society, should hold our monthly meeting in this fine institution devoted to the care and cure of those suffering with tuberculosis in our county, and at the same time to express our great admiration for one of our profession, a member of this society, for the fine part that he has taken and the wonderful work that he has done in making possible the opening of this institution so that the tubercular sick can have as good a chance for relief, and cure at home near their friends, as it is possible to obtain anywhere by anyone, no matter what station in life that tubercular patient might occupy.

The people of Passaic County have been most generous in the matter of providing means to build and equip this wonderful sanatorium, and I feel certain that they will endeavor willingly to provide the means for its support, just so long as it is run properly and the results obtained are on a par with that of the best institutions in the world of its kind, and that no part of this money is wasted or improperly spent.

Despite the fact that millions of dollars have been invested in this institution, it would have availed but little for the purpose for which this money was spent were it not for the fact that men like Dr. O. R. Hagen were willing to give unsparingly of their time and ability in placing it in a position where it was possible to carry out to the highest degree the functions for which it was created. This has been a tremendous task, one impossible of appreciation except by the members of our profession, his splendid associates on the Board of Managers of Valley View, the personnel of the institution, the Board of Freeholders, and some citizens interested in tuberculosis work, and some small number of others who, though they remain silent, nevertheless have a pretty accurate knowledge of what is going on in our community. To-night, Dr. Hagen, I want you to know that your colleagues in the medical profession, not only of Passaic County, but of the entire state of New Jersey, are proud of, and grateful to, you for the splendid work that you have done and for the evidences present here of the untiring devotion and self sacrifices made by you in causing this great institution to operate as one of its kind and all others should.

We, of the Passaic County Medical Society, admire, respect, appreciate and love you, and those of us who know you best feel that the people of Passaic County were fortunate indeed when you accepted this call for public service, when you

were asked to serve as a member of the Board of Managers of Valley View and, again, when you so graciously agreed to accept the presidency when urged to by your associates on the Board of Managers, during what I believe to be the most trying period in the history of any new and large institution, such as this one.

Now that this fine hospital is functioning well and efficiently through your wise and able leadership, we want you to know that we are all intensely proud of the wonderful part you took in making this possible. At the same time we cannot help but express regret that your great activity, so splendidly, unselfishly and uncomplainingly given, has resulted in impairing somewhat your health. We, your friends and colleagues, want you to conserve your energy and strength as much as you can, for we want you, oh, so much, for many, many years to come, not only for Valley View, but for your patients and ourselves so that we may continue to receive the benefit of your wise counsel and advice; likewise that we may be permitted to continue to enjoy your wonderful friendship and companionship that we cherish so much.

In conclusion permit me to extend to your successor, Dr. Todd, another fine colleague, who, like yourself, has done so much for Valley View, our appreciation and best wishes as the new President and to assure him of the united support of every member of the Passaic County Medical Society, at any time or in any way that he may desire it in helping him carry out the policies of the Board in the management of Valley View."

Dr. H. H. Lucas was then asked to speak. His remarks follow:

"I am glad to be here to listen to the kind words of praise to Dr. Orville R. Hagen. It has been my good fortune to be closely associated with him. Undoubtedly, Dr. Hagen thinks this praise is quite unnecessary for he prefers to go about his work quietly, trying to accomplish those things that he feels it is his duty to do. Dr. Hagen need have no fear that he will be unable to measure up to the standards his friends have set for him. His friends have watched him for 25 years, and all admire him for what he has done. This splendid institution stands as a monument to his life's work. The recognition of this work is just. Dr. Hagen is ever loyal, generous, and charitable. Tried in the Crucible of Time, he says almost pure gold, the balance being precious gems which serve but to add lustre and brilliancy to this fine character."

Dr. Morrill then asked Dr. Leon E. De Yoe to speak. His remarks follow:

"As one reviews the history of the development of medical science one fact stands out in rather bold relief: whenever a new law has needed a champion, whenever a new ideal has needed a defender, there have always arisen men from the ranks of the profession ready and eager to sacrifice all in the establishment of the truth.

It is on the battlefields of these innumerable and often bitter conflicts that has been builded our concept of modern medicine. With the large scale applications of these concepts so conceived, we are occupied today in the practice of our profession.

It is indeed good to know that in this era of commercialism there are men in whose hearts still burn the fire of the zealots of old—men who gladly give of their time, of their thought, of their energy; men who are even willing to give their health—that to those afflicted about them may come the best that medical science can give.

Proud am I to be permitted to add my tribute to one such—Dr. Orville R. Hagen—humanitarian, crusader, friend.

May we of the generation following him, being ever mindful of his splendid example, likewise consecrate ourselves to the spirit of our calling.

Mr. President, I would like to move that the résumé of the work of Dr. Hagen as presented by Dr. Todd tonight be spread in full upon the minutes of this society; that a copy be sent to Dr. Hagen; and that a copy be sent to the Journal of our State Society for publication."

It was regularly moved and seconded that Dr. De Yoe's motion, to have the remarks of Drs. Todd, McBride, Lucas and De Yoe spread in full upon the minutes of the society; that a copy be sent to Dr. Hagen; and that a copy be sent to the State Journal for publication; be adopted. This was carried.

Dr. Morrill asked the society to use the sanatorium as an aid to chest diagnosis. He thought that if the members of the county society became thoroughly acquainted with the staff and the hospital, everyone would benefit.

The Scientific Program was presented by the Staff of Valley View. These papers were illustrated by carefully prepared sketches and lantern slides. They will be sent to the State Journal for publication. Program follows: Dr. Stephen A. Douglas, "Childhood Type Tuberculosis"; Dr. Samuel Golden, "Observations on Nontuberculosis Pulmonary Suppurations"; Dr. Lucien Ranger, "Therapeutic Collapse in Pulmonary Tuberculosis".

Dr. Samuel English, of Glen Gardner, considered it a rare privilege to attend this meeting. He congratulated the medical profession and the people of the county upon having such a fine institution. Dr. English congratulated Dr. Hagen on the successful culmination of his labors.

Dr. English stated that the death rate from tuberculosis has been reduced two-thirds in the last 50 years. He thought that the next great advance in caring for tuberculosis would be in caring for the children contacts so that these cases would not develop into the adult type. Five hundred children have been taken care of at Glen Gardner; 95% of the children get well and stay well. Many of these children are now adults and remain well. The ability to stay well is in inverse proportion to the amount of initial involvement. Minimal cases all do well. Life expectancy is 75% of that of normal individuals. Moderately advanced cases will give 50% of normal expectancy; while in advanced cases, only from 5-10% will live as long as normal individuals of the same age group. Consequently, there is a great economic loss for the state in caring for advanced cases. The proper thing is to care for the children and treat them early. Active tuberculosis in children is common. It has been found that 3% of children of school age have tuberculosis.

Dr. English hopes that the doctors and the public will look upon Valley View as the Mecca for those who are afflicted with tuberculosis. He congratulated Drs. Golden, Ranger and Douglas upon their splendid papers.

Dr. Morrow, of Bergen Pines, thanked the society and the staff for the invitation to be present. He thought that the county society has given a splendid and well deserved tribute to Dr. Hagen. Dr. Morrow thought that the Passaic County Medical Society was especially fortunate in having the Tuberculosis League closely allied with the Sanatorium and in having the President of the State Medical Society directly interested in it. With such a capable staff and fine equipment, Dr. Morrow looks to Valley View to become a leader

in its field and in teaching the county physicians more about tuberculosis.

Adjournment was followed by a splendid collation served in the dining room of the hospital.

UNION COUNTY

Summit Medical Society

W. J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, Tuesday, March 25, 1930, at 8.30 p. m., with President Meigh in the Chair. Our host, Dr. Baker, was unfortunately unable to be present. There were 19 members and 6 guests present. The minutes were read and approved.

The Committee on the Twenty-Fifth Anniversary announced that arrangements had been made for a dinner at Baltusrol Golf Club on Tuesday, April 15, 1930.

The paper of the evening was read by Dr. Robert M. Miller, of Summit, on "Pregnancy and Tuberculosis".

Recent studies show that the deleterious effect of pregnancy in tuberculosis is not as marked as was previously thought, although it varies directly with the stage of the disease. Intra-uterine infection of the fetus has been proved to be possible, although rare. The greatest danger to the child is the inherited predisposition to the disease and postnatal infection.

As to terminating pregnancy in the early months the wisest course is as follows: In active, far-advanced cases abortion does little good; in active, moderately advanced cases abortion has its greatest value in saving the life of the mother; in active minimal cases, where the woman is pregnant for the first time, abortion gives the greatest chance for arrest or cure, although in the majority of cases, with careful medical attention, the disease can be held in check. If tuberculosis has been arrested, pregnancy will probably go through safely.

In some cases with a unilateral lesion, artificial pneumothorax may make it possible to carry a woman through pregnancy who would otherwise have to have an abortion performed.

The labor should be made as easy as possible. Lactation is generally harmful for the mother and dangerous to the child. The tubercular process must be closely watched throughout the pregnancy, parturition and puerperium.

Clinical Society Elizabeth General Hospital

The regular monthly meeting of the Clinical Society of Elizabeth General Hospital was held on Tuesday evening, March 18, Dr. Michael Vinci-guerra, President, in the chair.

The program was given over to the Surgical Department.

"A Case of Fracture of the Humerus and Femur", Dr. Alvin R. Eaton; "Extensive Operation on the Chest, Axilla, and Arm, following Severe Burns", Dr. James S. Green; "Tuberculous (?) Sinus following Appendectomy", Dr. Emil Stein; "Omental Cyst", Dr. C. A. Brokaw; "Omental Infarct", Dr. M. A. Shangle; "Fracture of Elbow, with Infection by Gas Bacillus", Dr. Alvin R. Eaton.

Those participating in the general discussion were Drs. Green, Casilli, Shangle, Stein, Quinn, Brokaw, and Eaton.

The evening closed with a social hour and a collation provided by the Woman's Auxiliary of the hospital.

Obituaries

BOOTAY, Frederick Starr, of 607 Washington Avenue, Belleville, prominent in public health work of that town many years, died February 13 at St. Barnabas' Hospital, Newark. He suffered a fractured pelvis January 27, when he slipped on ice while making a professional call and had been in the hospital since then.

Born January 17, 1878 in Brooklyn, Dr. Bootay was a son of the late Edgar S. Bootay, New York stock broker. Starting his education in the public schools of that city, Dr. Bootay later attended the Brooklyn Polytechnic Preparatory School and in 1904 was graduated from the Baltimore Medical College with the M.D. degree.

He served as intern at St. Luke's Hospital in Baltimore and then established a practice at Akron, Col. Returning East after nearly 2 years, he started practice at St. George, Del., but spent much time in study and travel in the United States. Through a friend in Newark he went to Belleville in 1912.

In the suburban town, he launched upon public health endeavors, doing a great deal to eliminate unsanitary conditions and forwarding disease prevention work. He was president of the old Board of Health and was a town and school physician 15 years.

FERRIS, Sanford J., 321 S. Ninth Street, Newark, died at his residence February 16.

Dr. Ferris was one of Newark's best known and best loved general practitioners for more than a quarter century and also was considered one of the most skilful surgeons in the city. His patients included many Roman Catholic clergymen and he numbered among his friends important figures of that church.

Dr. Ferris was noted for his charity and on many occasions paid from his own pocket patient's hospital, nurse and other medical bills without the patient's knowledge. It was said that, until a few years ago, he never had sent a bill to any patient.

He was an indefatigable worker and seemed to give no thought to his own health or comfort. Many of his friends feel that Dr. Ferris hastened his death by overwork.

His medical training was received at Yale University Medical School, from which he was graduated in 1897. Dr. Ferris served his internship at French Hospital in New York and later went for special obstetric training at New York Lying-In Hospital.

In 1899, Dr. Ferris came to Newark and opened an office on Littleton avenue, where he practiced 3 years. At that time he became visiting physician at the House of Good Shepherd, a position he held until 1922.

Later he became a consulting surgeon at that institution. For several years he was connected with the Eye and Ear Clinic at St. Michael's Hospital.

Dr. Ferris became connected with St. Mary's Hospital in Passaic in 1908, assuming the duties of staff surgeon. He retained that post until a year later, when he became chief of staff of St. Mary's Hospital in Orange, a position he held until his death. He was visiting physician at several hospitals in Northern Jersey.

He was a past president of the Essex County Medical Society and vice-president of the Metcalf Foundation Institute for Radiotherapy in Orange.

He was a fellow of the American Medical Association and a member of the New Jersey State Medical Society and the Academy of Medicine of Northern New Jersey.

SULLIVAN, Michael Joseph. The Bergen County Medical Society, wishing to record its sense of loss in the passing of Dr. Sullivan, adopts the following memorandum relating to our long-time member and former president, and makes it a part of our minutes.

Michael Joseph Sullivan, who died November 3, 1929, was born in County Kerry, Ireland, April 9, 1873. This locality has become well known in America as the place whence has come so great a number of men who have made their mark in the political life of their adopted country and risen to dominance in certain sections.

Dr. Sullivan belonged to that class of Irishmen who, belligerently, if need require, reach out and grasp what is in the horizon of their vision. His family emigrated when he was 12 years of age to America, the land of promise, so attractive to Irishmen of ambition, and settled in Brooklyn where his father practiced law. His preliminary education was obtained in the Brooklyn schools and he was graduated in medicine at the Baltimore Medical School in 1902. The same year he began practice in Englewood, this practice to continue, with one short interruption, till his illness, which finally proved fatal, laid him aside. The continuity of his practice was interrupted by his service in the U. S. army during a part of the World War.

Five years after coming to Englewood he entered the medical service of the hospital, later to become the chief of the Obstetric Department. Here he developed the prenatal clinic and was for a time its head. When the Holy Name Hospital began to function he was elected to its medical department. For 14 years he was medical examiner in the Teaneck schools. He entered the World War as Captain in the Medical Corps and was discharged a Major after a few months' service. He was in charge of his department on a transport and during an invasion of influenza was so successful in its treatment and his record showed a mortality so proportionately small as to call for a special citation from his superiors. Early in his war work he became the victim of an unusually severe form of dysentery which shortened his stay in France, and after a few months, returned to America, but he never recovered his former robust health which rated at his enlistment 100%.

Dr. Sullivan will be remembered as having been President of the Bergen County Medical Society in 1926. At the formation of a Post of the Veterans of Foreign Wars he was its first commander.

For 11 months before his death he fought against the ravages of throat and mouth cancer, of course a losing fight. The acute physical suffering which this disease entails, coupled with the mental anguish induced by a hopeless prognosis, no one can estimate, but one may easily imagine that it wrenches the very fibers of one's being and challenges every oral instinct. It is said that Dr. Sullivan faced the grim terror which assailed him with its portent of inevitable defeat, with the fortitude and patience worthy of the early martyrs, and we reverently say—"Requiescat in Pace".

It is ordered by the society that this record be spread upon the minutes and a copy be sent to Dr. Sullivan's family.

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ADDRESS AS PRESIDENT OF ACADEMY OF MEDICINE OF NORTHERN NEW JERSEY

FRANCIS R. HAUSSLING, M.D.,
Newark, N. J.

What is wrong with the doctor? Daily we hear him criticized by the lay public. Is this criticism just? I, for one, think very little of it is just, whether it emanates from the lay public or from our fellow practitioners. To arrive at a just conclusion and to be fair to the physician it is necessary to reason from a true premise; namely, that the doctor is just a human being actuated by the same hereditary primitive instincts and influenced by environment; also, that self-preservation is the first law of nature and the realization that we are living in an age in which material welfare dominates in every walk of life.

Throughout the centuries since Hippocrates (360 B. C.) the physician has existed and subsisted on the bounty of his fellow men. As I once heard a prominent internist express it, speaking of the relationship of physician and wealthy patient—"a sort of glorified servant".

It is only within the last 25-30 years that he has been able to earn a livelihood comparable with that earned in other pursuits; that he has been able to provide for his wife and children the standard of living within the reach of others. The layman seems to resent this; seems to feel that the doctor has too much of this world's goods and comforts, and welcomes any change that may curtail his earning power. The subconscious reaction

being that the physician is thereby lifted above the necessity of catering to the layman's whims and unreasonable demands because of his greater material independence. I grant you that most laymen feel that their own doctor is a most trustworthy individual, but while this is undoubtedly true my reaction after 25 years of practice is that they also feel that all other physicians, and the profession as a whole, bear watching and that their acts are influenced mostly by selfish motives. Were this not so, how much easier it would be for us to institute reforms and influence legislation for the layman's own protection. One needs to spend but a short time in Trenton with the Legislature to have this fact brought home very forcibly.

Now what is the result? The spirit of "state medicine"—and, believe it or not—state medicine in its broader sense has arrived. It is here. In foreign countries where it is more firmly entrenched, it has proved to be no great panacea for the ills of mankind nor has it elevated the ethical standard of the practice of medicine. After spending 2 years of my life abroad, I need no one to tell me this. I draw my own conclusions from personal observation and contacts. I have no quarrel with the foreign trained doctor. I bid him welcome just as I do every other foreigner who comes to these shores to improve his material welfare, for we are all foreigners a generation or two back. But, I do ask him to play fair with the country of his adoption, to become a citizen, and to accept its form of government; and in the narrower sense to play fair with his fellow practitioners of American birth or foreign birth and Ameri-

can medical training. Propaganda attacking our form of government and propaganda attacking the quality of American medical education is, to say the least, unfair, and in the latter case it is untrue, for no where in the world are the rank and file of physicians more competent.

You may say the Workmen's Compensation Law in force in New Jersey is the only law on the statute books in this state applying to "state medicine", and that it has resulted in great good for the workingman by providing him with financial protection during his period of disability. I grant this and also the principle "that a human machine wrecked or worn-out while being used in an industrial plant should and must be repaired at the plant's expense and directly or indirectly by the community at large through higher prices paid for manufactured goods". This is a humanitarian principle. But when applying humanitarian principles why not apply them equally to all factors involved. The law protects the injured workingman, it protects the employee and through him the public at large but does it protect the family physician when it permits his patient, often against the patient's will, though his doctor may be perfectly competent to handle the case, to be taken out of his care? Isn't this "state medicine" to the Nth degree—when we dictate whom a man shall have attend him when his life and health are at stake?

The argument that the medical care of the workingman was neglected does not hold good. Long before this law appeared upon the statute books, the workingman received excellent medical care whether or not he could pay for it. Competent family doctors, and hospitals and clinics in charge of competent men, rendered good, conscientious, free medical service. They are still doing so in some hospitals that are at the same time collecting under the law for hospital care from carriers who are providing support for the injured workingman during his period of disability.

When the spirit of state medicine is applied to individuals well able to pay for luxuries as well as necessities, and this spirit is enforced

by foundations through the insidious use of wealth, I feel it is all wrong, does not tend to increase the sum total of scientific medical knowledge nor quality of the material entering the medical profession, and denies that democratic principle that all men are born free and equal.

Within the past few months, while discussing Medical Foundation control of medical education and allied hospitals, with 2 prominent physicians from neighboring cities, both holding teaching positions, I was surprised to learn to what an extent this control had advanced. One doctor made the statement that most medical schools and allied hospitals had at least one representative of these foundations on the faculty; that they were responsible for the full-time surgeon and internist; and especially for fixing of the maximum earning capacity of these men. The other related an experience he had while attending a meeting of a society to which he had recently been elected in a neighboring university town. In an address, the Director of one of these Medical Foundations made statements to which the new member took exception. Having had the courage to oppose these views the new member on returning home found he had been demoted. Asked by a friend why he had made these statements, he said they expressed his views and he felt the speaker's remarks should be challenged. His friend said: "Yes, but you should not have said it." I say this is not democracy, it is autocracy, and surely was never the original intent of the man whose name the Foundation bears.

What has been the result? World famous clinicians holding teaching positions have been compelled to resign professorships when these became full-time positions. Having no inherited wealth nor any other source of income, they found it impossible to continue teaching, because the salary was inadequate to meet the heavy demands made upon their purses in an attempt to maintain the dignity of such positions. In one of these college hospitals, I am told, an internist may charge but \$35 weekly for medical attention no matter what the financial status of the patient

unless there is some special feature in the case when he may be granted permission by the office to increase his fee. No self-respecting physician will ask for this permission.

What will be the result? The field of professorships and teaching positions in general will be closed to poor but capable and ambitious medical men with wide clinical experience and will be filled by men of no great clinical experience but with entrenched wealth who have never experienced the vicissitudes of private practice. Just when they are of the greatest value as teachers, able men will resign teaching to go into private practice because of the economic urge.

If the theory of fixation of maximum earning capacity is correct, why not form a union to also fix the number of working hours, blow a whistle for the luncheon hour and quitting time, and see that all services rendered are promptly paid for? In this age of fixers when everyone regulates everyone's else life but his own, perhaps we can train laymen to be stricken with appendicitis between 8 and 12 a. m. and laywomen to give births only between 1 and 5 p. m. And here is the crux of the situation as I see it. When all this regulating and fixing is accomplished, what about the material from which we shall recruit our future physicians? Just as today many rural communities have too few physicians because the economic situation is such that the physician can have more of this world's comforts, with less effort, in urban communities and still rightfully feel that he is doing good, and just as the "panel doctor" in England hopes for the day (whatever his age) when he will have saved enough to retire from practice and move to the country where he can live simply and in peace for the balance of his life, so will the future promising candidate for the practice of medicine turn to some other life work in his pursuit of happiness and contentment. For I state again that the medical prospect is fundamentally like the rest of mankind, he is just a human being.

Because a merchant is successful and thereby acquires a great fortune, much of which together with much of his time he devotes to alleviating human suffering, is he condemned because of his desire to give to

his wife and children some of the comforts of life? Why should the physician be denied the same privilege if he likewise gives generously of his time and energy without remuneration?

As long ago as 1924, in his address before the State Society, Dr. Eagleton stated that "due to the development of Industrial Medicine, the nation as a whole has embarked on a program of state medicine (hide it from ourselves as we will) and it is up to the medical profession to guide it properly in this program for it alone has the experience and knows what is best". It is 5 years since Dr. Eagleton made this statement, and we have been carried much further into this not unmitigated blessing of state medicine in its broader sense. The spirit and aims of state medicine are not entirely dependent upon state laws and their enforcement but can be, and they are, largely influenced by insidious propaganda and by the acquiring of arbitrary power by Medical Foundations through the use of wealth not always directed with a sense of fairness toward the medical profession. Five years ago Dr. Eagleton warned us to protect our interests, and surely the most deeply interested group, the physicians, have a right to material protection after the health and material protection of the workingman is assured.

State medicine, in its broader sense, is directed not only toward health protection but also (and this fact seems often to be lost sight of) toward the material protection of laymen well able to pay by regulating the maximum fee. It has always seemed to me that if the physician will give freely of his time and energy to those unable to pay and will be moderate in his charges to those with limited means, then his fee to those in affluence is entirely a matter between the patient and himself unless we grant the principle of socialism as correct and assume that under its workings we shall have no affluent class to deal with.

The warning, voiced 5 years ago by Dr. Eagleton, was again voiced in my presence a few months ago by a New York professor. He said: "Believe it or not, state medicine has arrived and, I add, we physicians sit by

and demand no voice in the matter until it is too late."

Shall we never learn from experience? Listen to our folly as recently as the beginning of the century. I shall read an excerpt from Dr. Eagleton's paper: "The first charter of our Society was obtained in 1790, 7 years after termination of the American Revolution, and expired by limitation in 1815. In 1866, the one hundredth anniversary of the Society, it petitioned that it was 'desirous of surrendering all of its special privileges and pecuniary immunities'. Think of it! Applying to the legislature to give up advantages! Such an action is almost unique in legislative annals. With every industry asking for greater and greater protection, the Medical Society of New Jersey petitioned to 'surrender all its special privileges and pecuniary immunities'. The charter of 1866 continued to give its component societies authority to confer the degree of M.D., which was the only right of importance preserved from the old original charter; for since its formation the component district societies of the State Medical Society had possessed the right to bestow the title of Doctor of Medicine on such of its citizens whose learning, character and conduct made them worthy to bear such a title before the public. In the early part of this century the last of its original great privileges was voluntarily surrendered. A greater piece of folly was never perpetrated. The result is that this year, 1924, 400 physicians visited Trenton in an effort to obtain some legal protection from abuse of the term doctor, the control of which the medical profession had carelessly thrown away less than a quarter of a century before. This was largely because the physicians of that day—engaged in the scientific study of disease—in their busy daily practice, failed to see that economic and industrial conditions might change, and that change would call for protection of learning, just as today American labor is demanding and obtaining protection against unrestricted immigration. The same as the foreign-born physicians of New York State have obtained protection against the competition of doctors coming from across the seas more recently by demanding that

they become American citizens before a license to practice is granted them. France has been compelled practically to refuse to grant licenses to Russian physicians. We here in New Jersey have not felt any pinch as yet."

The last line quoted tells the tale—we have not felt the pinch as yet. Let one group of physicians feel the pinch, the rest go naively and serenely sailing on until the pinch comes to them. A united front, as presented by other groups, is the rarest occurrence with the medical profession. Witness our present stand on "annual registration". Who knows but that in a few years we shall find that we have again asked to be relieved of a protective measure of great importance. Who knows that abuses will not creep in just as they have in the use of the title "M.D." Shall we never learn? I say, based on past history, when we protect ourselves we protect the public as well 9 times out of 10.

Why should we refrain from discussing this phase of our life work? Is it undignified and out of place at a time such as this, before a scientific body of medical men, under the auspices of a scientific organization, in an auditorium given generally over to scientific discussion? I think not, since the principle involved is far reaching. Can science advance and a high general level of excellence be maintained in any profession if laws are enacted or usages allowed to creep in that discourage the higher grade of raw material from entering that profession, or having entered and become moulded for its life work harass it with the struggle for existence and the bare necessities of life? Granted that this is so, then surely it is not out of place here and at the present time to discuss the principles of state medicine and their far reaching effect upon the medical profession.

Drawing my conclusions from this premise, I would earnestly urge that this society, while devoting most of its time and energy to scientific pursuits, devote some of its time to the material welfare of its members, since without material success scientific advancement becomes more difficult if not impossible. Adherence to the law of self-preservation is surely not undignified nor beneath our consideration and discussion, if it is not

undignified for New York State to consider the passage of a law to protect the foreign born citizen physician of that state by demanding that recent arrivals from across seas become citizens before a license to practice be granted, and if it is not undignified for France to refuse to grant license to Russian physicians, and, to come nearer home, if it is not undignified that we take exception to the unfair competition of the cults.

In closing, just a word about the Academy. I wish to take this opportunity to thank the members of the Council for their kind co-operation and faithful service and to thank the members for the honor they have conferred upon me and for their hearty support as shown by the large attendance at meetings. I wish to report healthy progress. The membership is growing; the library and reference service are being used more and more, from month to month; and last but also worthy of note, our finances are in good condition, which in line with what I have said is productive of greater happiness and permits us to do better scientific work.

THE PROBLEM OF ANGINA PECTORIS*

JACOB POLEVSKI, M.D.,

Attending Physician Newark Beth Israel Hospital,
Newark, N. J.

To the observing physician the problem connected with disease of the coronary arteries has been and still is largely a very baffling one. The symptom complex is by no means clear-cut in all cases. The pathologic findings on the autopsy table are by no means constant and are, at times, most surprising. One patient will suffer extreme, typical, anginal pain; yet not only may the objective clinical study by percussion outline, auscultatory signs, blood pressure measurement, orthodiagraphy or electrocardiography, fail to reveal any indication of a pathologic process but should there be an autopsy one may find nothing wrong with either the myocar-

dium or the coronary arteries. It was the writer's privilege to see 2 such cases within a period of one month in one of the leading European university clinics, where just such a discrepancy was observed. The cases subjectively looked like clear-cut coronary thrombosis but there were neither ante nor post-mortem objective findings. On the other hand, any one who has had the opportunity to see a good deal of autopsy material has frequently come across, as an incidental finding, extremely sclerosed coronaries, some almost completely calcified, without there ever having been anything in the clinical history pointing to coronary disease. One such case will show evidence of healed myomalacia cordis; others may not, in spite of the fact that quite a large branch of the coronary tree has to all appearances become impervious. Syphilis is known not to affect the trunk of the coronaries, but will frequently occlude the ostium of one or even both coronaries within the wall of the aorta, and it will do this quite frequently without killing the patient and without even leaving signs of myocardial damage. A number of such cases were pointed out by Prof. Erdheim, of Vienna, to the amazement of all who witnessed the autopsy. Furthermore, the history of these cases showed that these patients, outside of aortalgia, never complained of typical symptoms of angina pectoris.

Numerous competent roentgenologists have pointed out the discrepancy frequently observed between x-ray findings and the intensity of the symptoms. And the paradox is almost the rule; i. e., in cases with severe anginal pain the silhouette of the heart shadow is normal or nearly normal, while in cases of mild anginal pain they find heart shadows of dilatation. Electrocardiography is helpful only when it shows the characteristic T wave, which curve after all occurs only after myocardial changes have set in, therefore, mostly in thrombosis, but a negative electrocardiographic curve certainly does not exclude angina.

As far back as 1799, Paré pointed out various discrepancies between the clinical picture and the anatomic changes encountered in angina pectoris. His conception was that

* (Read before the Medical Section Academy of Medicine of Northern New Jersey, December 10, 1929.)

angina pectoris is a case of syncope, and that all the angina symptoms are prodromes leading up to a more or less severe fainting spell. In light of the findings in some cases similar to those described above, he is not altogether wrong when he writes: "The patient probably dies with no other symptoms than those which show an irrecoverable diminution of the motion of the heart." Later, in 1839,

ady, in its severe form, is most frequently dependent". On the other hand, Sir T. Clifford Allbutt, in a letter addressed to R. Levy in October 1924, makes the following statement: "Comparatively young persons don't die of angina pectoris—indeed directly no one does—they die of heart shock—vagus or ventricular fibrillation due to afferent pain."

Recently there has been a tendency to elim-

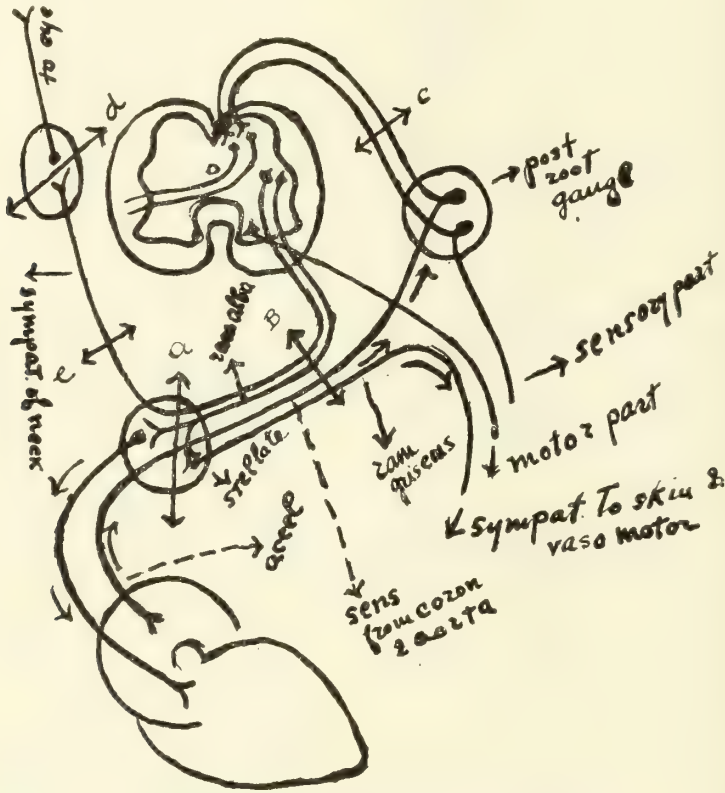


Figure 1. (a) Section through stellate ganglion. (b) Section or blocking of ramus communicans. (c) Section through posterior root of spinal nerve. (d) Section through or extirpation of superior cervical ganglion. (e) Section through or extirpation of sympathicus of neck.

Hope more emphatically dissents from Heberden's dogmatic conception of the pathologic anatomy underlying all cases of angina pectoris, when he says: "It may originate in any cause whether organic or functional, capable of irritating the heart, or of rendering it morbidly susceptible of irritation." The latter part of his statement is very much in keeping with some of the latest findings, when he further continues, "and as structural disease of the organ has this effect more than any other cause, it is that on which the mal-

inate not only the term pseudo-angina, but even that of true angina, and substitute for them the all-embracing term "cardiac pain", modified by the causative factor underlying the pain; viz., (a) cardiac pain due to coronary disease; (b) pain due to pathologic processes in remote organs but reflexly referred to the cardiac area; (c) cardiac pain due to thrombosis. The argument of authors who are particularly opposed to the term pseudo-angina is apparently sound. Why retain a term that means no more than would pseudo-

appendicitis; it either is or is not the condition. Whether the objection is fully warranted in all cases remains to be seen. The cause of anginal pain itself is still a matter of discussion. The Wenckebach theory seems very plausible and helps to explain many discrepancies, as we shall point out later.

Another question concerning the clinical condition of a patient suffering from coronary difficulty that wants explanation is the following: Most of these patients will go on for some time without congestive symptoms, such as large liver and edema of the lower extremities; the thrombotic case will, if death ensues shortly after thrombosis sets in, never develop those congestive signs with the exception of a tender liver. Should they linger for some time and then die of myomalacia, there may be some signs of congestion in the form of a slightly enlarged liver and, at the very end of the condition, there may be slight edema of the legs. Should the patient go on to recovery by scar formation, then he may never show any pronounced congestive signs throughout the whole course of his ailment. This is the experience of all who have had the opportunity to observe a considerable number of pure anginal or thrombotic cases. Yet, there are some cases, either the slowly progressive type of angina, or the acute thrombotic cases, that will from the earliest stage show evidence of severe congestion such as a very large liver and massive edema of the lower extremities. So much so that one often wonders if he is dealing with pure coronary disease or possibly with an additional condition such as a silent mitral stenosis. And thus the question looms up—what is it that causes early and pronounced congestive phenomena in some cases and spares others?

However, a good deal is definitely known about pathologic physiology relative to cardiac pain, and a careful survey of already well known facts about the physiopathology of blood vessels in general and the coronaries in particular may throw a good deal of light on the obscure status of angina and may possibly explain some of the puzzling phenomena. It is not within the scope of this contribution to go into a detailed discussion of the

anatomy, physiology or pathology connected with the condition, and we shall simply emphasize the few outstanding salient points that are essential in the proper interpretation of this complex problem.

By far the larger part of the blood supply of the myocardium comes through the venæ Thebesii. The coronary arteries, while terminal, in the sense that there is no precapillary anastomosis, are yet capable of producing a capillary anastomosis of the main branches sufficient by circumvential circulation to prevent infarction and myodegeneration cordis even if one of the main branches has become completely occluded, provided, occlusion has developed slowly. This explains the absence of any evidence of infarction or scar formation in some cases of complete occlusion of one of the main branches of the coronary artery. The same applies in the case of slow though complete occlusion of the ostium of one coronary in lues, where the other coronary is permitted slowly to produce sufficient anastomosis and thus by retrograde circulation prevent a disastrous result. These are the patients who during their ailment may suffer no pain.

The heart muscle can get a sufficient supply of blood for its nutrition through the venæ Thebesii if they gradually and slowly assume the increased burden, by the coronaries being occluded slowly as is occasionally the case in mesaortitis luetica, where both coronaries may be occluded at their source in the wall of the aorta without producing any myocardial changes. These patients, too, outside of aortalgia, may never suffer from typical anginal attacks.

The usual site of coronary disease is in the anterior branch of the arteria coronaria sinistra. In a very small percentage of cases the right instead of the left artery suffers, with all the attending symptoms of right heart difficulty. This explains why in the vast majority of cases congestive symptoms, such as marked enlargement of the liver and pronounced edema of the lower extremities, is lacking until the very end; while in a few cases congestion sets in early and very intensely. Conversely, a diagnosis of right coronary disease can be made in the presence

of symptoms of angina or thrombosis plus early and marked signs of right sided congestion.

According to Pal, all cases of hypertension with organic changes consisting of real productive thickening of vessels begin as a vascular crisis caused by some irritation which may be brought about by exogenous or endogenous toxins or by neurogenic influences of psychic origin. This vascular crisis expressing itself in the form of a spasmodic contraction may last for a brief period of time but may recur after a shorter or longer interval. These vascular spasms continue to recur at progressively shorter periods of time, until finally they come to stay. This state of vascular contraction without organic changes in the walls, he terms "hypertonia", in contradistinction to hypertension where the vessels are already organically altered. The stage of hypertonia may last years before productive changes set in. Either hypertonia or hypertension may be confined to one region or even one artery or may be generalized. Once organic hypertension has affected a blood vessel, particularly when atheromatosis and calcification have taken place, that vessel or the affected part of it is no longer subject to further vascular spasm. Any psychic irritation, any external or internal irritation anywhere in the organism, is capable of producing a generalized or an extremely localized vascular spasm in any region of the body. This explains the mechanism of effort angina in cases where there is no organic change in the coronaries, or the mechanism of angina (contraction) brought about reflexly by pathology in some remote organ, such as diseased gall-bladder or even an overloaded stomach of a gormand. In other words, reflex angina stands for a real spastic contraction of the coronaries and implies more than mere precordial pain projected from somewhere else on the basis of Head's zone theory.

Viewed from this angle, reflex angina or pseudo-angina assumes a greater significance and can no longer be dismissed as of little consequence. For if angina means suffocation, then that condition is present in the coronary artery and the part of the myocar-

dium supplied by it even if the spasm is brought about reflexly, and the patient thus afflicted may die suddenly of cardiac shock, or of ventricular fibrillation, without leaving any recognizable evidence of myocardial pathology or of coronary disease. We must, though, admit that there must be some physiopathologic though invisible "anlage" for the increased susceptibility of the coronary in such a case. These are the patients who may suffer extreme pain without showing pathologic findings on the autopsy table.

Patients frequently present the following history: Repeated attacks of anginal pain for a period of years, then the symptoms abate and often subside completely for quite some time. Then like thunder out of a clear sky, they are stricken with an attack of coronary thrombosis. This sequence of events is readily explained by the immunity of the calcified vessel from further spasmodic contraction. Early in the disease the fairly normal or slightly atheromatous vessel, because of irritation, undergoes a spasm accompanied by the usual anginal symptom complex. As the pathologic processes within the artery progress and when finally calcification sets in, contraction no longer being possible, anginal symptoms cease. Later, because of the severe atheromatosis and calcification as well as narrowing of the lumen, thrombosis sets in with its frequently fatal issue.

The cause of pain in angina pectoris is still a mooted question. In an address, Wenckebach, in 1928, at the Vienna University, expressed the following opinion. All smooth muscle when overstretched causes pain. Thus, uterine contraction causes pain by dilatation and overstretching of the part of the viscus above the contraction ring. Intestinal colic causes pain by the overstretching of the bowel proximal to the contracted part. Similarly, in angina pectoris the spasm of a part of the vessel causes an over dilatation in the proximal part. The extent of the proximal overdistention will depend upon the degree of cardiac pumping power. Hence, the greater the cardiac dilatation, or the poorer the myocardium, the less the dilatation of the proximal part of the anginosed coronary, and therefore the less the pain. Conversely, the

better the myocardium the greater the dilatation of the vessel and therefore the more severe the pain. This explains the roentgenologist's discrepancy between the heart shadow and the severity of the anginal pain.

TREATMENT OF ANGINA PECTORIS

During the last decade a good deal has been written on the surgical treatment of angina pectoris. Section of the sympathicus of the neck, and later on extirpation of the cervical sympathetic ganglia has been advocated. In our eagerness to relieve these unfortunate sufferers from the most dreadful, agonizing pain, we have been submitting them to this procedure. When one studies carefully the physiology of the sympathetic nervous system, one wonders how this idea could ever be propounded, and how physiologists ever acquiesced to this innovation.

The object of this procedure was to bring about a two-fold effect. (1) To prevent vasoconstriction of the coronaries by extirpation of the cervical sympathetic, which is supposed to be the great vasoconstrictor, parallel with the Leriche operation that consists of stripping the adventitia of a vessel in trophic diseases and thereby bringing about a vasodilatation by removing the end fibers of the sympathetic vasoconstrictor in the adventitia. (2) To block the path of pain from the coronaries, supposed to go through the cervical sympathetic.

Now, it is definitely established that while one of the main functions of the thoracolumbar, or sympathetic part, of the autonomic nervous system is the maintenance of a normal blood pressure by its vasoconstrictor action, it exerts this effect on the whole arterial and even capillary system with the exception of the coronaries, on which it has the very opposite, or dilating, effect. Adrenalin, the great stimulator of the sympathetic and, therefore, the most powerful vasoconstrictor, is known to dilate the coronaries. It is because of this action that it is the drug par excellence in shock, where it raises the general arterial blood pressure and dilates the coronaries, thereby facilitating a better nutrition and stimulation of the heart muscle. And thus we see that by abolishing the sym-

pathetic we will bring about the very opposite effect from that desired, namely, a greater contraction of the coronaries instead of their dilatation.

As to the abolition of anginal pain by sympathectomy, one is even more at a loss as to how that idea remained unquestioned for so long a time. The path of coronary and aortic pain is as follows: From the latter structures through the cardiac nerves to the stellate ganglion by centripetal sympathetic fibers that are not interrupted by any synapses in any of the sympathetic ganglia, through the rami communicantes of the eighth cervical and first thoracic spinal nerves, to the posterior ganglia of the sensory roots of these nerves, into the spinal cord and up to the brain. The sympathicus of the neck and superior cervical ganglion, or the part of the sympathetic chain above the stellate ganglion, have nothing to do with the pain from the aorta and coronaries, as this part of the autonomic nervous system is practically exclusively the path for the sympathicus effect of the pupillary dilatation, maintenance of the eyeball in its proper position in the orbit by action of the sympathicus on the retrobulbar Mulerian muscle, and on maintenance of the proper tone of the eyelid muscle. Extirpation, therefore, of the stellate ganglion will block the pain tract, and so will blocking or severing of the corresponding rami communicantes otherwise known as paravertebral injection. But this will also sever or block the accelerator that also runs through the same ramus and ganglion, and thus we run the risk of destroying acceleration and leaving the heart to the mercy of the unopposed vagus.

The normal heart may very well get along without the aid of the accelerator. The heart in angina, however, is seldom free from some pathologic condition. Such a heart will be badly embarrassed in emergencies when the accelerator effect is lacking because of destruction of the accelerator nerves. The only logical and physiologically correct method for abolishing anginal pain, is section of the posterior roots of the eighth cervical and first thoracic nerves, as by doing this we abolish only the centripetal sensory tract and spare the all important centrifugal accelera-

tor fibers of the heart. The only explanation for the occasional relief after sympathectomy is poor surgery. Paradoxical as it may sound, the poorer the surgeon the greater the incidence of relief following operation. The dexterous surgeon, who confines his scapel to the structures above the stellate ganglion can not get results; while his less skillful colleague can hardly be expected not to damage the adjoining stellate ganglion and thus, unwittingly, he temporarily gives the anginal patient a not unmingled measure of relief.

CORONARY THROMBOSIS*

AARON E. PARSONNET, M.D., F.A.C.P.,
Newark, N. J.

Thrombosis of the coronary arteries may be defined as a sudden stoppage of one of the branches either by a thrombus caused by atheromatous or arteriosclerotic changes in these vessels, or an embolus occasionally seen in the wake of malignant endocarditis. The chain of symptoms induced by such disaster is so striking, and pathologic changes so definite, that this condition now serves as a separate and new entity in the development of modern medicine.

Knowledge of coronary occlusion dates back many years and was familiar to old clinicians and investigators in a loose and unclassified sort of way. It is astonishing to learn that no classified account of this definite condition can be found in the literature until about 20 years ago. The nearest approach to description of coronary occlusion is badly intertwined with angina pectoris even by such skilful observers as Huchard and Krehl, in spite of the fact that in their excellent papers the essential clinical and pathologic features of the disease were carefully noted. They speak of the characteristic pain, pericarditis, pericardial friction rub, pulmonary embolic phenomena, distant and weak heart impulse, cardiac infarction,

aneurysm and sudden death, but no clear-cut antemortem diagnosis is ventured. All writers until very recently have considered coronary thrombosis merely an incident in the course of angina pectoris.

Louis Hamman, in a very comprehensive paper on "Symptoms of Coronary Occlusion", calls attention to the first definite account of this disease by 2 Russian physicians, Obrastzow and Strachesko; they published their observations in 1910, and emphasized the various symptoms under "status anginosus", "status dyspneicus", "status gastralgicus" and "myopragia cordis". The first American contribution to this subject was made by Herrick, in 1912; and I may add here that almost the entire study both clinically and experimentally in the last 15 years was conducted in the United States, and may be considered our own contribution to present knowledge of cardiology. Indeed, Herrick firmly established the clinical fact that occlusion of even large branches may not necessarily cause instant death, and in some isolated instances complete or partial recovery may take place. More recent studies of the coronary circulation, coupled with postmortem findings, show conclusively that thrombosis may occur in the smaller vessels without causing material damage. Grave results seem to depend more upon the underlying condition of the heart muscle rather than upon immediate damage produced by the lesion. Many recoveries can also be attributed to the fact that in some instances extensive re-canalization of an occluded artery may take place and thereby save a considerable portion of the myocardium from permanent damage.

With advent of the electrocardiograph, even greater impetus and clarification has been lent to this subject, and in the light of our present knowledge, coronary occlusion is now easily recognized at the bedside, and in a majority of instances in the electrocardiographic laboratory. In view of the seriousness of the condition and the frequency with which it occurs, early recognition of this disease looms preëminent. With improved understanding of the subject, the physician today is not quite so helpless before this acci-

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dent, and therapeutic measures instituted are not altogether futile.

It is not the aim of this paper to delve deeply into the anatomy of the coronary arteries; certain well established facts, however, should be brought to our attention. The controversy, in literature, as to whether the coronaries are end-arteries is quite familiar to those conversant with cardiologic subjects. Definite investigation of this matter dates from 1708, when Thebesius demonstrated the existence of anastomoses between the coronary arteries; Caldani confirmed his work in 1810. Ignoring these anatomic proofs, Hyrtl, Henle, and Cohnheim denied this; in experiments conducted on dogs they concluded that ligating any of the main branches would cause almost immediate death. These views were held unshaken until Porter, Jamin and Markel, Spalteholz, and finally Gross and Smith, proved them entirely erroneous and so confirmed the pioneer observations of Thebesius and Caldani. We have now reached a stage, however, where some of the old theories have been relegated to the past, while others have become definite and fully established facts.

Our present knowledge of the coronary circulation can be summed concretely as follows: The coronaries are not end-arteries in a sense that they simply have capillary anastomoses. Careful dissections, ingenious skiagraphic injections of arteries, and direct inspection of translucent hearts have all served to prove that definite anastomoses exist and are quite effective. In addition to others already mentioned, the works of Amenomiya, Hirsch, George Dock, Aschoff and Tawara, Bettman and Howard, and Joseph T. Wearn, all serve to confirm the fact that in a majority of instances, barring anatomic anomalies of the coronaries, the anastomoses are sufficient to explain recoveries where occlusion even of a main branch has taken place. It is a matter of record and frequent experience of pathologists to examine hearts of patients, who died from various causes, and find many scars of the myocardium bearing mute but unmistakable testimony to repeatedly occluded vessels and recoveries. It is also well known that patchy

sclerosis of the myocardium, intermingled with perfectly normal tissue is seen very frequently, giving additional proof that active anastomosis is going on.

Dr. Herrick calls to our attention this fact, however, that although anastomosis is proved beyond a doubt, an artery which anatomically is not terminal may still be so functionally. Not the least important observation made upon the efficacy of coronary anastomoses is that infarcts produced by occlusion are smaller than the area supplied by the vessels in question. From all these investigations, one may conclude that not all coronary obstructions need prove immediately fatal and that many other factors should be considered in determining the cause of sudden death. The clinical results from coronary occlusion will depend, therefore, upon the size of the vessel occluded, its particular location, and the number of vessels involved; the condition of the myocardium, the general cardiovascular state of the patient, and the blood pressure must also be taken into consideration, and the closely simulating conditions frequently encountered are to be sharply differentiated from coronary thrombosis. No attempt should be made to diagnose what particular vessel is at stake. Gross has clearly shown that the left coronary supplies both sides of the heart, and so does the right, and it would be futile diagnostic refinement to attempt to locate the lesion by the presence or absence of either pulmonary or systemic edema. It is well borne out by statistical data that the majority of occlusions occur in the descending branch of the left coronary artery.

What part the Thebesian vessels play in maintaining the circulation of the heart is still not a firmly established fact and will bear further observation and study; it is believed, however, that if the occlusion is gradual, they take up some of the burden of collateral circulation.

Going into the symptomatology of coronary thrombosis I shall exclude 2 groups: one, where death occurs so suddenly that a patient is seldom seen alive by the physician; and another rather large group of progressive arteriosclerotic disease where the occlusion proceeds so slowly that outside of

congestive failure, none of the spectacular symptoms occur. I feel, therefore, that only typical cases should be selected, having the characteristic stenocardial syndrome, and thereby render this paper of more practical value.

I know of no greater or more striking symptom than the profound, intense, prolonged, and unbearable pain that stands out as the first indication of this serious accident. This pain comes on without the usual attributes of angina pectoris such as effort, gastric distention, or mental anguish. It is such a constant and characteristic feature that the French authors, Lutembacher and Vaquez, still groping in the uncertainties of angina pectoris, have defined it respectively "effortless" and "decubital" angina. The patient may be held in this agonizing state for minutes, hours, or even a few days; the location of the pain is similar, to a certain extent, to that of angina pectoris, but is more intense and unabated. It is so frequently referred to the gastric region that it was described by some authors as the "status gastralgicus"; this feature is probably the most frequent cause of erroneous surgical diagnosis. The pain is accompanied or soon followed by profound shock; the patient is immobile, face is ashen grey, and in the words of Sanson, "it is a leaden tint spread over an earthy hue of skin". He is extremely anxious, covered with perspiration, the pulse is feeble, rapid, and at times almost imperceptible; even after the pain has subsided marked prostration persists. Dyspnea now adds to the gravity of the situation and the patient realizes that something terrible has happened to him.

Hamman summed up the outstanding features of the condition under pain, shock, and dyspnea; he considers these the most characteristic symptoms. In the wake of dyspnea, typical signs of passive congestion follow. Occasionally, extreme cyanosis is seen, and the pallor of shock gives way; pulmonary edema follows frequently and moist râles are heard at both bases; an irritable hacking cough may accompany this development and blood in the sputum gives evidence of pulmonary infarction as well.

In contradistinction to noisy and difficult breathing in some, it may be easy and free in others; Cheyne-Stokes respiration, however, is very often observed. The heart sounds are extremely faint and the apex impulse is almost imperceptible. All types of cardiac irregularities may assert themselves; short paroxysms of tachycardia, auricular fibrillation, may be noted, and occasionally heart block is observed. The most conspicuous feature at this time is the profound fall in blood pressure; indeed, the drop may be so low as to produce a marked diminution in urinary excretion. At this time also symptoms of infarction assert themselves. If the infarct reaches the epicardial surface, a to-and-fro pericardial friction rub may present itself to the ear of the alert physician. This is extremely fleeting and should be watched for almost constantly. In very large infarcts, this cardinal sign may persist, but in the vast majority of cases may disappear unobserved. In one of my cases which terminated fatally in 3 days, the pericardial friction rub had a decidedly piping and musical quality and could be heard distinctly over the entire precordium. A slight rise in temperature at this time is noted; this gradually reaches 101° or 102° and occasionally higher. According to Wearn and others, they consider this a toxic fever due to the absorption of destroyed muscle fibers. The blood count in the majority of instances will show a definite leukocytosis. This is of extreme importance as it is never seen in ordinary anginal seizures.

It is the experience of many clinicians that embolic phenomena occur more frequently than pericarditis. When the infarct reaches the inner surface of the heart, very often thrombi form and bits of the clot are broken loose. Thrombi of the right ventricle are the chief cause of pulmonary infarction, while those from the left ventricle usually find their way into the general circulation and may lodge in the brain, viscera, or obstruct the large vessels of the extremities. In cases of recovery, the infarct softens, is gradually absorbed, and replaced by scar tissue. The scar tissue frequently yields to pressure, forming aneurysmal sacs, the favorite location

being the apex of the heart. Rupture of the heart not infrequently follows.

Prognosis. About 50% of all patients die during the attack or within a very few days. Those who survive live from a few months to several years and exhibit various stages of cardiac impairment. A very small and still undetermined percentage survive apparently none the worse for their experience. The presence or absence of hypertension, syphilis, or sclerosis does not seem to alter the prognosis materially; as a matter of fact the incidence of syphilis, contrary to general impression, is rare.

Poor heart sounds and signs of congestive failure add to the gravity of the outcome, while the presence of fever and paroxysmal auricular fibrillation at the time of the attack do not seem to make much difference. Pericarditis, however, is seen most frequently in patients who die. Electrocardiography does not seem to give much help, though a marked bradycardia and complete heart block are bad prognostic signs. Neither the occurrence of angina pectoris nor its duration prior to the attack has seemed to matter.

In conclusion, I shall ask your indulgence for but a moment and sum up the outstanding features of the disease.

(1) Characteristic pain: Sudden, severe, and, unlike angina pectoris, prolonged; not yielding to nitrites or at times even to morphin.

(2) Shock with attendant rapid fall in blood pressure and suppression of urine.

(3) Marked signs of circulatory failure, characterized by feeble heart sounds, dyspnea, pulmonary edema, cyanosis, liver engorgement, and disturbances of conduction in the form of arrhythmias and occasional block.

(4) Signs of cardiac infarction with fever, leukocytosis, pericardial friction rub.

(5) Embolic manifestations in lungs, central nervous system, abdominal viscera, or extremities.

(6) Digestive disturbances manifested by nausea, vomiting, and severe epigastric pain, at times simulating acute surgical emergencies.

(7) Appearance of patient: ashen gray

facies, angor animi, cold and clammy perspiration and profound prostration.

DISCUSSION

Asher Yaguda: I wish to emphasize a few points which are of importance and which have already been brought out by the speakers of the evening. The first subject is the occurrence of pericarditis in these cases of coronary occlusion. One of the first things the clinician listens for when he suspects coronary occlusion is pericarditis and he is rather disappointed when he does not find any evidence clinically. A recent survey by Levine, of Boston, shows that pericarditis occurs in only about 50% of the cases, and usually is due to a large infarction involving both the wall and the pericardium. Presence of pericarditis, therefore, is of prognostic value in that it indicates a more serious involvement of the myocardium. The other point that I thought worth emphasizing is the formation of mural thrombi in these cases; a real source of danger to the patient and should be considered very carefully in giving any prognosis.

Last week I autopsied a patient who showed a recent area of myomalacia due to coronary occlusion, and found that both the right and left ventricles were filled with mural thrombi. These thrombi break off and give rise to extensive pulmonary infarction when on the right side, and infarction in other organs when on the left side. I have seen patients survive the effect of the heart muscle damage only to die a short time thereafter from an embolus derived from this process.

TREATMENT OF CHRONIC ENDOCERVICITIS BY SURGICAL ENDOTHERMY

R. B. WALKER, M.D.

Associate in Gynecology, New York Post-Graduate Hospital and Medical School; Associate in Gynecology and Obstetrics Middlesex General Hospital

New Brunswick, N. J.

During the past decade our conception of diseases of the cervix has been materially altered, especially concerning the therapeutic procedures employed for correction of pathologic changes. Attention has been focused on the treatment of chronic inflammatory lesions, and rightly so, since methods have been evolved which have replaced such destructive operations as tracheloplasty and excision of the cervix. In many instances these are unwarranted and unphysiologic, and abortion, miscarriage and premature labor have been sequels of operations on the cervix.

The cautery, as an agent for eradicating cervical infections, undoubtedly has accom-

plished the desired aim when used in selected cases by experienced operators, but the degree of heat penetration of tissue is at best only approximately estimated and controlled. Stricture of the cervical canal has been reported by a number of observers, and recently I have seen 2 patients with almost complete stenosis of the external os following cautery treatment.

Chemical applications and tampons of boroglyceride are also inefficient. Because of the depth of the racemose cervical glands, chemical solutions do not penetrate to their deep recesses and action is limited to the mucous surface. Stronger solutions, to be effectual, must of necessity destroy these glands and result in uncontrollable tissue damage, scar tissue formation, and contraction of the cervical canal.

Medical diathermy, I have also found to be inefficient, although various workers have reported excellent results in the treatment of gonococcal cervicitis. Most cases of chronic endocervicitis are caused by the pyogenic group of bacteria or mixed infections, and their thermal death point is not affected by diathermy.

Chronic endocervicitis is the most prevalent lesion encountered in gynecologic practice. Probably 40 to 50% of multiparous women have infected cervices. It is also a terminal condition in gonococcal lesions, the gonococcus being supplanted by the pyogenic group of microorganisms. In fact, this latter group usually offers more resistance to treatment. Many cases of cervicitis occur secondarily after the trauma of cervical injuries, incident to abortion, parturition or instrumentation. The damage sustained by the cervix during labor may not be visible upon inspection, particularly if tears are not demonstrable, but on returning for postpartum examination 6-8 weeks later the patient may present an eroded and edematous cervix involving either the anterior or posterior lip or both.

Occasionally, after plastic operation on the cervix intended to correct sterility, dysmenorrhea, or gross pathology of the cervix, an endocervicitis supervenes as a secondary infection because of failure of primary union.

Since many cervical infections are engrafted on unrepaired lacerations during parturition, it has been my routine practice to repair recent major cervical lacerations at the time of delivery. Postpartum examinations are made at the end of 1 month, and during the second and third months; if there is then any erosion, ulceration, or raw area on the portion which does not take the iodine stain ($3\frac{1}{2}\%$ tincture iodine applied with sterile applicator—the normal squamous epithelium taking a deep stain while the erosion or ulceration does not stain uniformly), I immediately institute measures to eradicate the infection.

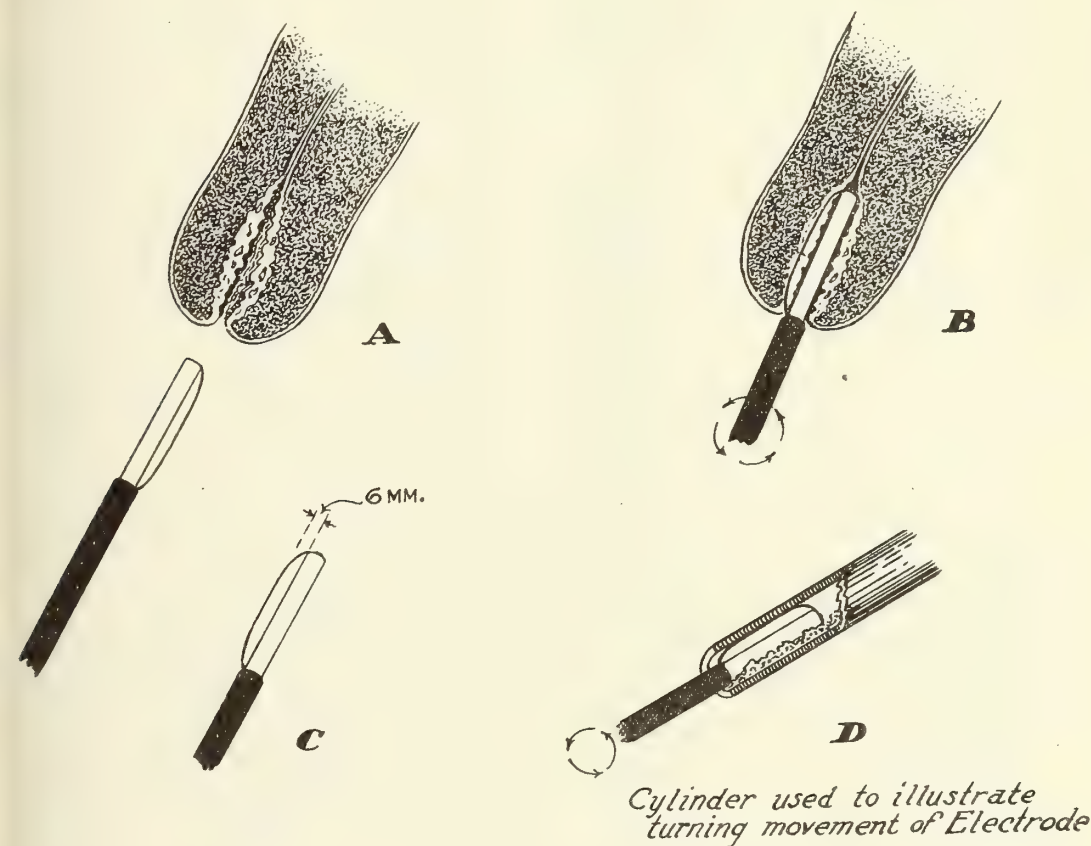
Frequently the obstetrician injudiciously attempts to hasten delivery by resorting to pituitrin, manual cervical dilatation, premature rupture of the membranes, various types of labor induction bags, or frequent vaginal examinations, all of which predispose to various degrees of cervical tears. The recent trend in obstetric teaching is toward the repair of all major cervical and perineal tears immediately or within 24 hours after delivery. It is claimed that postpartum morbidity is less frequent and that fewer cases of parametritis, cervicitis and subinvolution of the uterus develop.

The cervix is imbedded in cellular connective tissue radiating laterally in the form of a six-pointed star, richly supplied with lymphatics, which drain along the uterosacral, uteropubic and into the broad ligament channels. A cervical inflammatory process will disseminate infection along the above mentioned drainage areas to produce posterior, anterior and lateral parametritis. Acute lesions are more often confined to the broad ligaments while chronic involve the uterosacral ligaments. A vicious circle is operative in all cervical inflammations. Trauma and malnutrition resulting from douche nozzle, pessaries, instrumentation and labor, produce a break in the squamous epithelium of the portio or at the junction of columnar and squamous epithelium in the lower third of the cervix. Normal squamous epithelium is then replaced by cuboidal which readily transmits bacterial infection either by continuity of surface to the racemose glands of

the cervix or through the lymphatics along the cellular tissue radicles of the uteropubic, uterosacral and broad ligaments. The replacement by cuboidal cells is generally called erosion. Altered epithelization would be a better designation.

When the cervix has been lacerated by labor or instrumentation, there exists an associated inflammatory condition of the cervix,

and is placed on a slide in a circular fashion, the vaginal smear is placed longitudinally, and that from the cervix applied on an angle of 45°. This method serves to identify the specimens where the assistant or nurse has failed to label them properly. A microscopic study of the slide enables one to classify it into 1 of 3 groups, namely: normal, hypersecretion, or inflammation.



followed by scar tissue replacement and subsequent contraction, thereby producing the pathologic lesion frequently called erosion. Some writers take exception and state that this is ectropion. I firmly believe that originally there is bacterial inflammatory lesion of the cervix with loss of normal epithelium, and nature endeavors to cure the condition by covering the epithelial defect with columnar cells. Smears are taken in all cases and sent to the laboratory for classification. The following method has been adopted by Dr. Dannreuther: Material for the smear from the urethra is obtained by using a wire loop

Features	Normal	Hypersecretion	Inflammation
Mucous corpuscles	Moderate	Abundant	Moderate
Mucous threads	Moderate	Increase	Moderate
Pus corpuscles	Few	Few	Moderate
Epithelium	Few	Few	Moderate
Microorganisms	Non-characteristic	Possibly Micrococcus catarrhalis	Pyogenic

Normal mucus always contains threads, corpuscles, pus cells, epithelium and microorganisms. An excessive discharge is a manifestation of hypersecretion or infection. If hyperplasia is present, curettage will improve the condition. If the pathology is that of cervicitis, the lesion should warrant immediate

The following is a Clinico-pathologic Classification which I have adopted in my office practice in relation to treatment

A

Superficial inflammation without laceration of cervix. Duration 1-6 months.

Etiology

Postabortal
Postipartum
Pyogenic with erosion
Gonorrhea replaced by pyogenic group
Traumatic:
Instrumentation
D & C
Pessaries
Douché nozzle
Surgical operation on cervix with secondary infection

Histopathology

Round cell infiltration under squamous epithelium and death of basal layer of cells or more advanced pathology with round cell infiltration around the racemose glands.

Symptoms and Physical Signs

Vermillion halo about external os, mucopurulent discharge, sacral backache, tender uterosacral ligaments, dysmenorrhea

B

Mild laceration not sufficient to require cervicoplasty, 6 months to 1 year duration

Postipartum
Postabortal
Surgical operation or instrumentation upon the cervix

Round cell infiltration of duct and glands.
Squamous epithelial plug dipping into orifice of duct and producing occlusion and cyst formation

Papillary erosion
Infected laceration with ulceration and beginning Nabothian cyst formation.
Profuse discharge.
Sacral backache
Dyspareunia.
Pelvic pain.
Menorrhagia and Metrorrhagia

C

Moderate or marked laceration, 1 year or more duration

Postipartum
Postabortal

Marked infiltration of round cells of ducts and glands of entire endocervix. Occlusion of ducts with squamous epithelium. Marked formation of Nabothian cysts.

Infected laceration with ulceration and suppurating Nabothian cysts. Ectropion with suppurating cysts. Mucous polyps. Infected ulceration, probably early carcinoma. Nodular salpingitis, oophoritis, sterility, fibrosis uteri.

attention because of the vicious circle whereby a simple pathologic condition may be converted into a serious one if neglected.

TREATMENT—GROUP I

Experience has taught us that acute cervical lesions should not be treated locally. Acuity of the process is best determined by the symptomatology and the number of micro-organisms and pus cells present in the smear. Most cases become subacute in 6-8 days. Any active interference during the acute stage may excite pathologic lesions of the adnexa and pelvic peritoneum. If an ulceration or raw area takes the iodine stain uniformly, stimulating applications such as silver nitrate 5-20% will hasten squamous epithelial proliferation and cure. If the lesion does not take the iodine stain, chemical antiseptics such as mercurchrome 5 to 10%, metaphen, neosalol, as topical applications may be applied to the endocervix although their efficiency is doubted. /

Erosions may be treated with linear cauterization (striping) using a fine wire cauterizer (nasal tip) in a longitudinal fashion with 0.75 cm. spacing and to a depth of 2-4 mm., depending on extent of the erosion. In postpartum or postabortal erosions of 1-3 months duration either of the above procedures may effect a cure. Failing in these methods, I resort to destruction of the endocervical mucous membrane with the endothermic current and use a special cervical electrode devised by Dr. Mortimer N. Hyams.

TREATMENT—GROUP II

Destruction of the endocervical mucous membrane with the endothermic current and the cervical electrode. Puncture of cysts with fine needle electrode, using Oudin or d'Arsonval bipolar currents.

TREATMENT—GROUP III

Conization of the cervix, using the Hyams technic. The Sturmdorf operation is used in infected cervixes with marked laceration. The technic of this operation is detailed in all standard text-books on gynecology.

SURGICAL ENDOTHERMY FOR DESTRUCTION OF INFECTED CERVICES

The method I have employed is that originated by Dr. Hyams except that I prefer the Collings electrotome to other types of current generating apparatus. I employ the cervical electrode devised by Dr. Hyams. I am convinced that this method yields excellent results and have used it in the treatment of 30 patients who have had various types of cervical infection. Two failures have been noted in the group: one patient had adnexal disease and the other a retrodisplaced uterus.

The technic is simple and may be easily acquired with a little practice. It is an office procedure and produces very little or no pain. The voltage control on the Collings electrotome is set at 3 and the spark gap between 4 and 5, which affords a satisfactory cutting current. The current from the electrotome is conveyed to the Hyams cervical electrode through a special metal clamp attached to the operator's fore-arm. An inactive lead electrode, 6x8 in., previously made moist with tincture of green soap, is placed on the patient's abdomen and firmly held by the patient. The cervical canal is cleansed of mucus by application of peroxide, and then dried. A 3% tincture of iodine is used to sterilize the canal, followed by placing a pledget of cotton saturated with 35% solution of cocaine in the cervical canal for 5-7 minutes. The latter produces adequate local anesthesia.

The depth of the cervical canal is estimated and current is turned on by means of a foot-switch. The electrode is passed to the internal os and by means of a rotary motion, using very little pressure, the right hemisphere of the cervical mucous membrane is removed. A similar procedure is carried out on the left side. By this method the infected glandular area is entirely removed. In mild cases one need not destroy tissue beyond the white glistening basement membrane, while in badly infected cervixes, a greater depth of tissue is removed. A depth of 3-6 mm. is generally sufficient to ensure adequate removal of infected tissue. In fact, by this

method a cervix may be coned out in similar fashion to the Sturmdorf operation.

EXPLANATION OF DIAGRAMS

Figure A—Chronic endocervicitis treated by surgical endothermy. Illustrating the cervical electrode.

Figure B—Proper application of the electrode to the cervical canal and rotated to an arc of 180°.

Figure C—Illustrating the depth of tissue which may be removed by using different sized electrodes varying between 2 and 6 mm.

Figure D—Cylinder to illustrate turning movement of electrode which is generally rotated through an arc of either 90° or 180°.

ADVANTAGES OF THE ENDOTHERMIC METHOD

Tissue destruction is measured and controlled.

Patient need not be hospitalized.

There is no sloughing of tissue.

After-care is not required.

The method is practically painless.

There has been no postoperative bleeding in this series of cases.

Healing occurs by granulation and squamous epithelial cell proliferation, which requires a period of 4-6 weeks.

Patient is relieved of the cervical discharge and basic pathology.

There is no likelihood of a cervical stenosis.

Satisfactory results are not anticipated in the presence of retrodisplacement or adnexal disease, nor in patients having active foci of infection in the generative tract.

SPINOCAIN—THE CONTROLLABLE SPINAL ANESTHESIA*

GEORGE P. PITKIN, M.D., F.A.C.S.,

Chief Surgeon Holy Name Hospital,

Teaneck, New Jersey

Since the introduction of painless surgery our dreams have been of an ideal anesthetic; one that would abolish pain completely; be reliable and certain in its action, constant in

duration and intensity in direct ratio to the amount employed; not affect the normal secretions of the body; not affect respiration and circulation; be free from all complications brought about by the action of inhalation anesthetics, such as pulmonary edema, bronchitis, pneumonia, lung abscess, acidosis, distention, ileus, acute circulatory failures, and not materially disturb the central nervous system. Such an anesthetic should essentially be non-toxic, simple of administration, should lessen morbidity, and abolish anesthetic mortality altogether. However, such an anesthetic is still a dream. The reality is our present day anesthesia, the deleterious effects of which are an ever growing concern of thoughtful surgeons.

The short time allotted to this paper does not permit going into the causes of anesthetic morbidity and mortality. It should be pointed out, however, that the problem is only a part of the complex problem of cardio-respiratory physiology and pathology that has remained largely unsolved. We know that it is through interference with normal cardiorespiratory correlation that anesthetics cause their ill-effects. We see the phenomena of cardiorespiratory decompensation ensue as soon as the anesthetic action reaches and depresses higher central nervous elements regulating respiration and circulation, regardless of whether the anesthetic was inhaled through the lungs or injected into the subarachnoid space in a manner enabling it to diffuse in a cephalic direction. The respiratory embarrassment as manifest then in the degree of anoxemia, or the circulatory collapse as manifest in the degree of hypotension, is in both cases directly proportionate to the action of the anesthetic. The functions involve central nervous mechanisms, upon which the effect of the anesthetic varies greatly even from one individual to another; it is, therefore, beyond our power to estimate or control. In this lack of control lies the source of all complications of anesthesia caused by the anesthetic regardless of whether inhaled or injected. The action of the anesthetic depends on its diffusion. To control diffusion thus becomes the paramount goal of all anesthetics.

* (Read at the annual convention of the Surgeons of the Lackawanna and Jersey Central Railroads, Greystone Park, N. J., June 28, 1929.)

The fatalities of respiratory embarrassment or circulatory collapse, at the time of operation, are not to be compared with the secondary mortality, which is 99% of the whole as compared to a scant 1% of primary mortality. How many anesthetists or surgeons can truthfully say that they have had 100 consecutive cases without some post-

method adaptable for all operative procedures. But, with a combination of these and controllable spinal anesthesia any operative procedure may be carried out with greater protection to the patient and better facilities to the surgeon. To eliminate the possibility of respiratory and circulatory disturbance, permit me to suggest a spinal anesthetic that



Fig. 1. Before the anesthetic was administered as shown in the upper tracing the blood pressure was 132/68. Twenty minutes after 120 mg. neocain had been dissolved in spinal fluid and injected into the subarachnoid space the radial pulse was insusceptible. The pressure was 66/62. Note that the volume of the pulse is practically nil.

anesthetic complication such as shock, bronchitis, pneumonia, lung abscess, distention, ileus, acute cardiac or gastric dilatation, albuminuria, suppression or acidosis; many or all of which may be directly attributable to a partial or impaired respiratory or circulatory dysfunction.

The surest method of eliminating anesthetic complications is by the use of local or conduction anesthesia. Unfortunately, its art is not familiar to all of us, nor is the

will not diffuse with the spinal fluid; one that can, with the proper technic, be placed under direct control of the operator.

As we have known spinal anesthesia in the past, it produces hypotension. In fact, so great is the circulatory depression that one well known author in America states "that the radial pulse cannot be felt by the finger nor can it be detected by the ear when the arm is subjected to pressure of the sphygmomanometer cuff". Apparently this statement

is true, but when the blood pressure reading is taken with a recording sphygmomanometer the pulse pressure is greatly decreased, and the pulse volume almost becomes nil; in Fig. 1 it is seen that the blood pressure reading is approximately 66/62.

This extreme drop in blood pressure is due to diffusion of the anesthetic fluid cephalically. If the anesthetic fluid is confined to the lumbar spine, there is no change in the blood

hunger, and fear of impending danger are the alarming symptoms such diffusion of the anesthetic causes.

With an endeavor to overcome any or all of these objectionable symptoms of an otherwise ideal anesthetic, a series of experiments were conducted to ascertain the physiologic action of various drugs advocated for spinal anesthesia. We attempted to bring anesthesia under control of the operator; to prevent un-

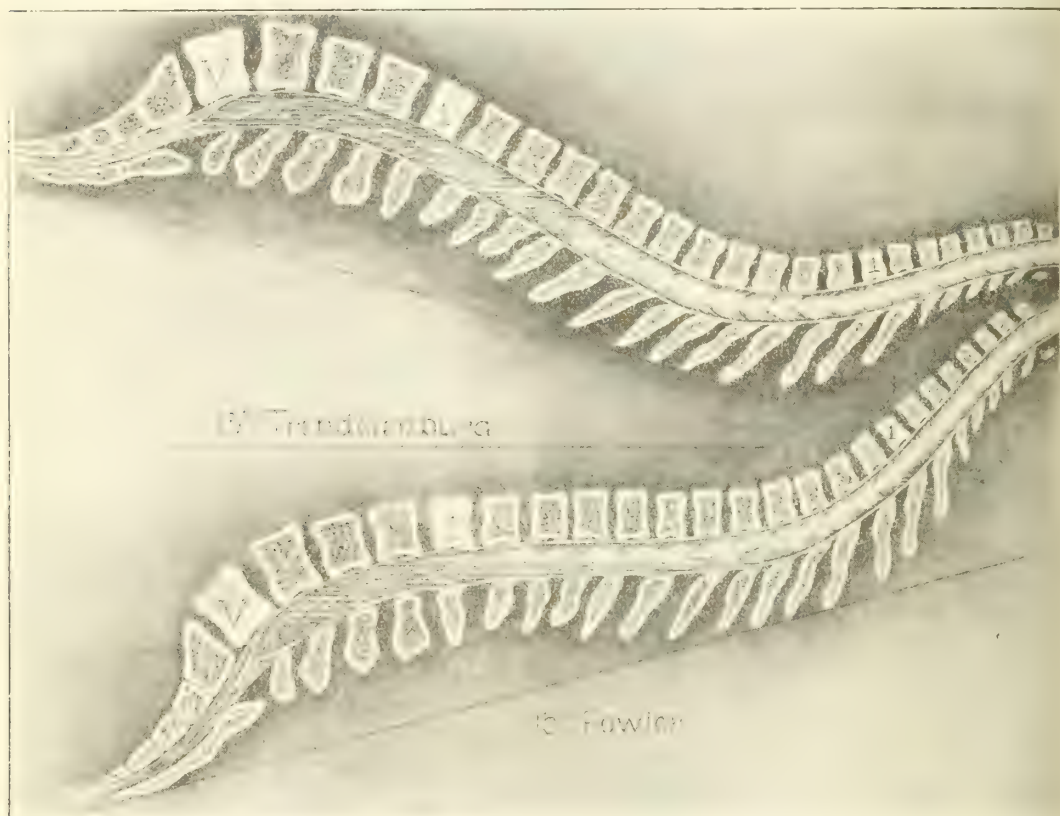


Fig. 2. Spino-cain bathes the anterior nerve roots at practically the same level as the posterior nerve roots when the patient is in a 15° Trendelenburg; with the heavy solution all the posterior nerve roots to the sixth thoracic are anesthetized. There is no involvement of any of the anterior thoracic nerve roots with the patient in a 15° Fowler's position.

pressure. If it reaches the first thoracic, the pressure becomes nil. If the nerves controlling the diaphragm and intercostal muscles are anesthetized, respiratory embarrassment arises. If it reaches still higher levels the sympathetic cardiac accelerators are anesthetized, and unrestricted vagus action slows down the heart. Extreme pallor, nausea, vomiting, cold clammy sweat, a feeling of pressure over the precordium, thirst, air-

certainty as to the parts involved; stabilize intensity and regulate time of anesthesia; diminish the tremendous drop in blood pressure; minimize nausea and vomiting; abolish cold sweats and anxiety; eliminate air-hunger and cardiac pains; solve the mystery of post-anesthetic headaches; and to prevent localized peristalsis and systemic disturbances. We set out to produce a spinal anesthetic that would minimize the toxic reactions, be cer-

tain in effect, constant in duration, act in direct ratio to the amount of anesthetic agent injected, would not in any way affect the heart action, vascular tension or respiratory function; one that would restore, if possible, the confidence of the surgeon in this form of anesthesia. A new anesthetic compound had to be devised and the technic so modified that the procedure could be carried out almost with the exactness of the micrometer. If the desired results are to be obtained one must be able to mentally visualize the position of the solution within the subarachnoid space, as with spinal anesthesia we are interested only in the posterior nerve roots and the various strands of the cauda equina that form the sacral and lumbar nerves. When a solution lighter than the spinal fluid is introduced into the spinal canal, with the patient in a 15° Trendelenburg, the anterior nerve roots are bathed with the anesthetic at a higher level than are the posterior. When a heavy solution is used, with the patient in a 15° Fowler's position, Fig. 2, clearly shows that the posterior nerve roots are affected at a much higher level than are the anteriors. Therefore, to obtain the same height of anesthesia on the body surface with a lighter solution, a greater mechanical expansion is required, as will be shown later under the technic. With the heavy solution we are able to obtain anesthesia of the body surface without necessarily temporarily paralyzing the anesthetized parts, as the motor roots are unaffected. The amyloprolamin in spinocain prevents dissemination or mixing of the anesthetic solution with the spinal fluid for over 2 hours, or until the anesthetic agent has become fixed or anesthesia has disappeared. The amyloprolamin also greatly lessens the toxic reactions of novocain. With this preparation 200 or even 400 mg. may be employed, and give less reaction than when 100 mg. of novocain or neocain crystals are dissolved in spinal fluid and reinjected into the subarachnoid space.

Many advantages of spinocain anesthesia were found in a study of 160,000 operations of general surgery and 1800 obstetric cases performed by various operators throughout the United States and Canada, as compared

with various forms of inhalation and spinal anesthesia:

(1) Apparatus required for introduction of this anesthesia is comparatively inexpensive and may be found in almost every physician's outfit: 2 hypodermic syringes (2 c.c.) 1 hypodermic needle, 1 spinal puncture needle, and the anesthetic solution.

(2) Technic is very simple since no greater knowledge is required than that of doing an ordinary diagnostic lumbar puncture.

(3) Limited spinal anesthesia may be administered by the operator himself, thereby eliminating the necessity of an anesthetist or an assistant; a distinct advantage in emergencies, in isolated or country practice.

(4) Anesthesia is quickly secured in 1-3 minutes after injection and complete anesthesia occurs in excess of 99% of the cases. It is better than epidural or caudal anesthesia, which is invariably delayed 15-25 minutes, and unsuccessful anesthetics are reported in from 15 to 25% of the cases.

(5) Patients suffer no shock or drop in blood pressure (Fig. 3). There is no danger of suffocation, cyanosis, strangulation, or swallowing of the tongue as with inhalation anesthesia.

(6) In obstetrics asphyxiation or cyanosis of the child is rare.

(7) Anesthesia may be confined to the perineum or carried to any desired height on the body surface.

(8) It eliminates postanesthetic complications.

(9) It does not affect the heart, kidneys, lungs or liver. Postoperative lung and intestinal complications are reduced to a minimum.

(10) Dehydration is not produced; a distinct advantage in eclampsia and toxemia where water is so essential.

(11) It assures coöperation of the patient throughout the operative procedure.

(12) It may be given to patients with bronchitis, influenza, cardinals, nephritics, alcoholics, addicts, and hypertension cases without fear.

(13) Shock is eliminated.

(14) Vomiting is rare. Postanesthetic distention or ileus does not occur. The sphincters are relaxed and peristalsis is stimulated.

(15) It increases the patient's comfort during and after delivery or operative procedures.

(16) There is no lowering of resistance. Nourishment may be taken immediately after the operation.

(20) In obstetrics postpartem hemorrhages are less frequent.

(21) The cervix and perineum are protected from trauma and lacerations since relaxation and elasticity of these parts is greater when so anesthetized.

(22) The bladder spontaneously empties itself, hence cystocele is less common as a postpartum complication.

(23) The cervix readily dilates or is

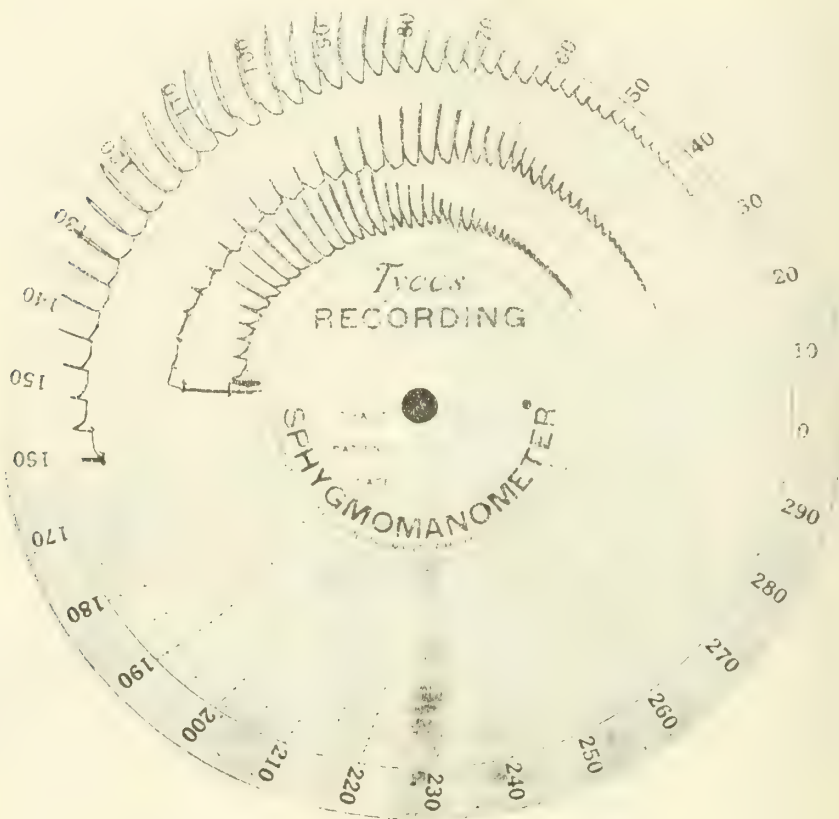


Fig. 3. Before the anesthesia was administered the blood pressure reading was 125/62, as shown in the lower line. Twenty minutes after spinocain had been injected into the subarachnoid space the reading was 126/53. One hour after administration the pressure was 147/68 as shown in the top tracing. Note the increased volume of the pulse wave.

(17) The blood pressure is not affected (See Chart No. 1.) There is no pallor or profuse perspiration.

(18) The residual oxygen content of the lungs is not altered. There is no respiratory dysfunction or pulmonic irritation.

(19) It eliminates the possibility of acidosis; the carbon dioxide content of the blood is not increased.

easily dilatable. Vaginal cesareans may be eliminated.

(24) The vascular tension is not altered, hence there is no postoperative suppression.

(25) The anesthetic agent is nonirritating, hence no postoperative bronchitis or albuminuria.

(26) Morbidity and mortality of obstetric cases are reduced.

Age	Operation	Amount			Position	Duration	Blood Pressure			After Operation	Color	Height of Anesthesia
		C.C.	Interspace	Lumbar			Before	During	Operation			
38	Cystocele Rectocele	Spinoecain	2	c.c.	4th	15 Trend.	130/80 P. 80	138/70 P. 86	124/70 P. 88	Normal		Symphysis
35	Retained secundines curettement	Spinoecain	2	c.c.	4th	18 Trend.	128/65 P. 88	120/60 P. 90	125/60 P. 84	Good		Iliac Crest
84	Prostatectomy	Spinoecain	2	c.c.	4th	15 Trend.	130/90 P. 86	150/70 P. 80	150/70 P. 88	Normal		Symphysis
65	Carbuncle of Urethra	Spinoecain	1.5	c.c.	4th	18 Trend.	164/78 P. 90	192/88 P. 84	192/90 P. 84	Flushed		Perineum only
57	Excision of Rectum 2nd stage C. A.	Spinoecain	2	c.c.	4th	Buttocks elevated	102/64 P. 80	118/74 P. 84	112/72 P. 84	No change		2nd Lumbar
22	Hemorrhoidectomy	Spinoecain	1	c.c.	L.S.	20 Trend.	108/60 P. 80	108/70 P. 80	112/70 P. 76	Face Flushed		Perineum only
42	Fistula in-ano	Spinoecain	2	c.c.	4th	15 Trend.	125/70 P. 80	108/60 P. 92	116/60 P. 88	Slight Fallor		Symphysis
55	Stricture of Urethra, extravasation of urine	Spinoecain	2	c.c.	4th	20 Trend.	140/90 P. 96	135/80 P. 96	135/80 P. 84	Very Good		Symphysis
24	Twins O. P. Version	Spinoecain	.5	c.c.	4th	18 Fowler's	126/40 P. 108	135/65 P. 88	135/60 P. 80	Flushed		Symphysis
33	Primipara O. P. Instruments	Spinoecain	.75	c.c.	4th	18 Fowler's	138/70 P. 96	145/65 P. 80	140/65 P. 80	Normal		Perineum
42	Multipara 9 Arm Version	Spinoecain	.5	c.c.	4th	Sitting 18 Fowler's	128/64 P. 96	135/70 P. 84	135/48 P. 80	Good		Symphysis
24	Primipara O. A. Normal	Spinoecain	.5	c.c.	L.S.	Sitting 18 Fowler's	138/65 P. 96	130/60 P. 80	138/65 P. 80	Good		Symphysis
38	Ext. Urethrectomy	Spinoecain	.5	c.c.	4th	Sitting 15 Fowler's	130/65 P. 88	138/70 P. 84	140/70 P. 80	Good		Perineum
34	Fissure in-ano dilatation cautery	Spinoecain	.3	c.c.	4th	Sitting 18 Fowler's	108/60 P. 90	118/60 P. 90	112/65 P. 80	Good		Perineum
67	Fract. Patella	Spinoecain	.5	c.c.	4th	Sitting 15 Fowler's	140/70 P. 84	140/64 P. 80	148/70 P. 80	Good		Perineum Leg to Knee
27	Fract. Tib. & Fib.	Spinoecain	.5	c.c.	4th	18 Fowler's	118/65 P. 88	128/60 P. 88	120/60 P. 84	No change		Symphysis

Chart No. 1--These cases were selected at random from reports of Doctors Sise, Kelly, Pollack, Morrison, Percy, Ochsner, DeTakalats, and others. Note that the blood pressure suffers no severe drop.

(27) The child is offered greater protection than with any other form of anesthesia.

(28) In perineal prostatectomies it renders greater protection and comfort to the patient and almost converts a major operation into a minor operative procedure.

TECHNIC

The equipment for spinocain anesthesia is simple and inexpensive:

1 Luer-lock syringe, 2 c.c. capacity

that will permit manipulation of the needle and syringe without fear of detachment. They should be so constructed that there is no chance of leakage or the injection of air. They should also have a locking device that will not jam or permit the needle to "blow off". One of the syringes should hold 2 c.c. for the local ephedrin-novocain solution and the other 3 c.c. for the spinocain or heavy solution.



Fig. 4. An infant 2 months of age; the conus medullaris terminates opposite the fourth lumbar vertebra. Note the ill developed spinous processes.

- 1 Luer-lock syringe, 3 c.c. capacity
- 1 Pitkin spinal puncture needle
- 1 hypodermic needle with safety guard $\frac{3}{4}$ in.
- 1 ampule spinocain
- 1 ampule ephedrin-novocain solution
- 1 pair sterile gloves
- 1 sponge holder
- 1 sterile file
- sponges
- tincture of iodine, 5%.

The syringes should preferably be of an all-glass type with suitable locking device

The needles should be made of rustless steel. They are less apt to break, retain a sharp point longer and withstand a great deal of bending and manipulation. The needle for local infiltration should be of 25 or 27 gage, sharp, and provided with a safety guard to prevent its disappearance should it break in the tissues. The spinal puncture needle should be of rustless steel, not nickel-old or nickel-plated, of 20 or 22 gage. The smaller the caliber of the needle the less will be the trauma to the tissues and the less post-

operative headache. The bevel should be of 45° , never 20° or 30° . The author's needle has a short bevel, the rear portion of which is rounded so that it cuts a miniature trap door in the dura. This opening closes by intradural pressure when the needle is withdrawn, preventing seepage of spinal fluid and the resultant backache and headache. It is inadvisable to use the large Bier needle of 15 to 17 gage, or a needle with a long tapered point. With a large needle trauma of

assure one's self that there is little possibility of breaking it in the tissues.

The ampules should be immersed in 70% alcohol to sterilize them. Before using, the neck of the ampule should be nicked with a sterile file and then broken off with the fingers, protected with gauze or a towel. The contents of the ephedrin-novocain ampule are drawn into the 2 c.c. syringe and the spinocain or heavy solution into the 3 c.c. syringe.



Fig. 5. A child 5 years of age. The cord terminates between the third and fourth lumbar vertebrae. Note that there is little curvature of the infant's spine as compared to the adult.

the soft parts is produced and with a long tapered point needle unnecessary bleeding frequently occurs. Furthermore, satisfactory anesthesia with this type of needle is not always secured because a portion of the bevel may remain partly outside of the dura, and so some of the solution be deposited extradurally.

Before sterilization, the stylet should be withdrawn from the needle, which is then tested by bending it into a semicircle to re-

One hour before operation the patient should be given an injection of morphin sulphate 16 mg. ($\frac{1}{4}$ gr.) and scopolamin 0.4 mg. (1/150 gr.). While this in no way intensifies the anesthesia it allays fear and apprehension. In extremely nervous individuals the dose of morphin may be increased to 20 mg. ($\frac{1}{3}$ gr.) or an additional amount of 16 mg. of morphin may be administered 5 hours before operation.

Spinocain has a much lighter specific grav-

ity than spinal fluid and will ascend rapidly in the spinal canal if the upper part of the patient's body is raised. *Spinocain* should never be given to the patient in a sitting position. The heavy concentrated solution is much heavier than the spinal fluid and should be administered only with the patient sitting or in a Fowler's position.

The paramount thought and endeavor should always be never to hurt the patient

Before proceeding with the injections it is advisable to place the equipment and the syringes filled with their respective solutions on a sterile table in easy access to the operator. The spinal puncture and injection of spinocain should always be done with the patient lying on the side with knees flexed upon the abdomen, the head bent forward and the back bowed out. This position separates the spinous processes and puncture may be made



Fig. 6. A child 11 years of age. The conus medullaris is found opposite the second lumbar vertebra. The insert shows that the spinous processes and the body of the vertebra are better developed.

at any time. A patient once subjected to a painful manipulation may lose faith in the method and the ability of the operator. Lost confidence is hard to regain and may be the direct cause of an unsuccessful anesthesia. To be successful with spinal anesthesia the technic should be developed to such a finesse that the patient is never subjected to pain and is carried through the operation in a happy frame of mind.

easily and painlessly. The shoulders and hips should be in a vertical line. If the shoulders are tilted and the hips vertical, or the hips tilted and the shoulders vertical, a "corkscrew spine" is produced, which presents difficulties at the time of puncture. If a right-sided operation is to be performed the patient should be placed on the left side, as spinocain is of a lighter specific gravity (1.0005) than spinal fluid; it floats on the

spinal fluid and anesthetizes the nerves of the right side first. For a left-sided operation the patient should be placed on the right side. Where median incisions are to be made there is no choice. The head of the table should be lowered so as to place the patient in a 5° Trendelenburg position. This is hard to estimate, but easily measured with the tiltometer (Pitkin).

The heavy concentrated solution is of much

the sacrum a wider interspace will be found, which is selected for the point of puncture. By firm pressure with the thumb nail of the gloved hand, a mark is left on the skin which is easy to find when the wheal is to be raised. The interspace selected for the site of puncture is not of material importance, as the extent of anesthesia is regulated almost entirely by the degree of Trendelenburg or Fowler's position employed, and by the

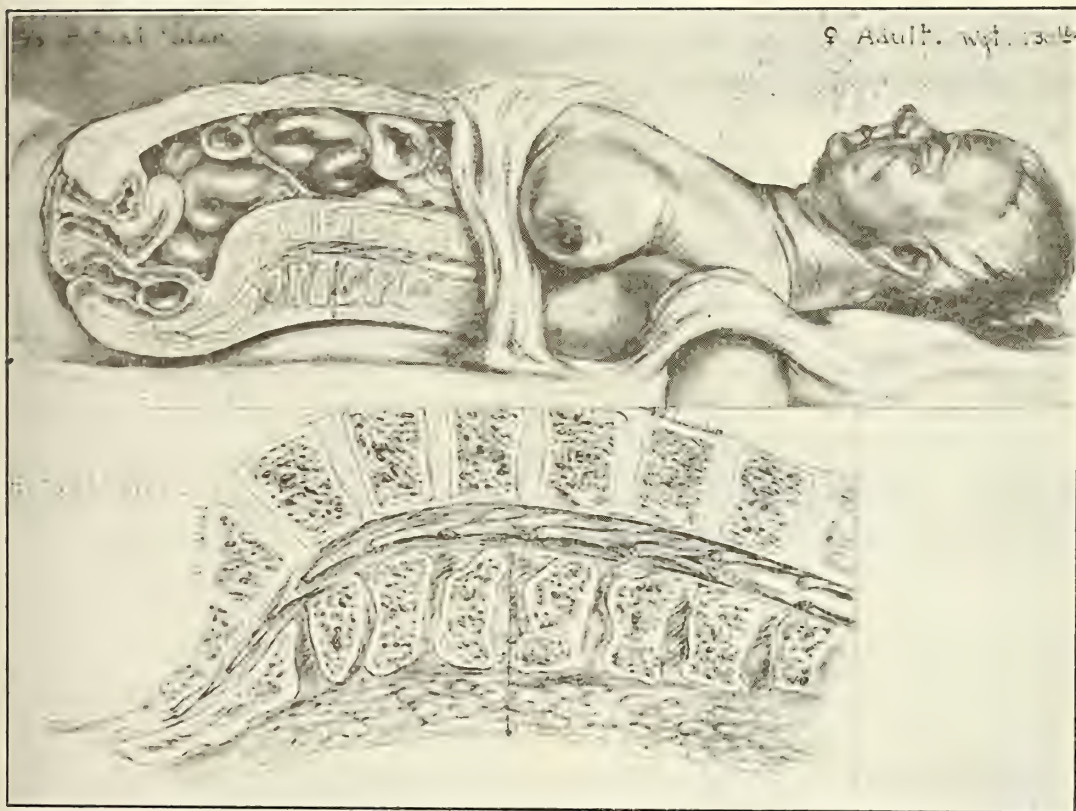


Fig. 7. In the adult's spine the cord terminates at the lower part of the twelfth thoracic vertebra. Note the development of the spinous processes, and their close proximity as compared to the interspinous space of children.

heavier specific gravity (1.109) than spinal fluid and will immediately gravitate to the dependent parts of the spinal canal. *The heavy solution should always be given with the patient sitting or in a Fowler's position. After administration the patient should never be placed in a Trendelenburg position.* With the patient in position the skin over a wide area extending from the fifth or sixth dorsal vertebra to the sacrum is painted with a 3 to 5% tincture iodine, then by palpating along the lumbar spine from the twelfth dorsal to

amount of mechanical dissemination of the solution, purposely effected by mixing either solution with the spinal fluid. *To secure satisfactory anesthesia spinal fluid should be aspirated into the syringe and mixed with the anesthetic solution before any attempt is made at injection.*

For stomach and gall-bladder operations a quicker anesthesia will be obtained if the first lumbar interspace is selected.

Before proceeding with the spinal puncture a cutaneous wheal is raised with one-

half of the contents of the ephedrin-novocain (ephedrin 50 mg., novocain 10 mg., distilled water ad q. s. 1 gm.) ampule, using a fine hypodermic needle as described. Without withdrawing the needle it is carried directly into the interspinous ligament, while the other half of the solution is injected as the needle advances. By projecting the solution ahead of the needle the latter enters freshly anesthetized fields. In other words, the thumb proceeds faster than does the needle. The spinal puncture may be made without pain by inserting the lumbar needle through the center of the wheal. In penetrating the interspinous ligament care should be taken that the needle is at right angles to the long axis of the spine. Never attempt the puncture between the laminae. Avoid inserting the needle in an upward direction or at an acute angle to the spine. Do not deviate to the right or left. The veins about the cord which are large and numerous may be avoided when the puncture is made as recommended. Unnecessary bleeding will occur if the puncture is attempted between the laminae, with the needle at a tilt, or with a needle of large caliber, or with a long tapering point. When the dura is punctured there is a slight snap, which is recognized after the first few punctures, and the needle encounters less resistance. Avoid the point of the needle piercing the opposite side of the dura or coming in contact with the body of the vertebra.

When the dura has been entered, the stylet is removed and spinal fluid should flow through the needle. If no spinal fluid appears rotate the needle on its own axis, and if there is no flow insert it deeper. If bony resistance is felt (the body of the vertebra) the needle has undoubtedly been deviated or inserted too deeply. In that event it should be withdrawn to the skin surface and reinserted at a slightly different angle. Always have the stylet in place when making manipulations. Occasionally the first drop or two of spinal fluid will contain blood. When bleeding ceases the injection may be made. If it persists, the needle should be withdrawn and reintroduced. Injection of the anesthetic solution should never be made until clear spinal

fluid flows through the needle, as this is the only assurance that its point is within the dural sac. Unless the solution is injected into the subarachnoid space anesthesia will not occur.

When anesthesia of the perineal region is desired only 1 c.c. of spinocain is required. Attach the 3 c.c. syringe containing 1 c.c. of spinocain to the spinal puncture needle, aspirate 1 or 2 drops of spinal fluid to reassure yourself that the needle has not been misplaced, then inject the contents of the syringe, immediately placing the patient in a 15 to 18° Trendelenburg position as measured by the tiltometer. If anesthesia is to be confined to the legs 2 c.c. of spinocain is used. Aspirate 1 c.c. of spinal fluid into the syringe containing the anesthetic solution, and then inject one-half of the contents. Again aspirate 1 c.c. of spinal fluid and inject the contents of the syringe. This amount will be sufficient to bathe all of the lumbar nerves. The table is now placed in a 10° to 15° Trendelenburg position. For anesthesia to the umbilicus 2 c.c. of spinocain is sufficient for short operations. For prolonged operations 2.5 to 3 c.c. should be employed in ratio to the anticipated length of the operation. Into a 4 c.c. Luer lock syringe aspirate 1 c.c. of spinal fluid; inject one-half the contents. Again aspirate 2 c.c. of spinal fluid and inject the contents of the syringe, placing the patient in a 7° to 10° Trendelenburg position.

To extend the anesthetic to the sixth or seventh dorsal vertebra and anesthesia to the costal margin, draw up 3 c.c. of spinocain into a 4 c.c. Luer lock syringe, aspirate 1 c.c. of spinal fluid, inject one-half the contents, again aspirate 2 c.c. of spinal fluid, inject one-half the contents of the syringe and repeat this once again to make a total expansion of 8 c.c.; then inject the contents. Then place the patient in a 5° Trendelenburg position.

To produce intradural sacral anesthesia with the heavy solution have the patient sit up on the table with back bowed outward, elbows resting on knees, and head bent forward with chin on the chest. Palpate along an imaginary line between the crests of the

ilia to locate the fourth lumbar interspace. Insert the spinal puncture needle as described. Aspirate 1 drop of spinal fluid to reassure yourself that the needle is in place and inject 0.5 c.c. of the heavy solution. Permit the patient to remain seated 3-4 minutes to allow the anesthetic to become fixed. Then place the patient in a Fowler's position of 15° to 18° or reverse Trendelenburg. To secure anesthesia of the legs aspirate 1.5 c.c. of spinal fluid into the syringe containing the 0.5 c.c. of heavy solution, and inject the contents. Immediately place the patient in a 12° to 15° Fowler's position. To secure anesthesia of the upper abdomen the patient should be placed on the side as described for the use of spinocain, but in a 10° to 12° *Fowler's position*. Into the syringe containing 0.75 c.c. heavy solution aspirate 3 c.c. spinal fluid. Inject contents of the syringe. Keep the patient in an 8° to 10° Fowler's position or elevate the head and shoulders with pillows. This will carry anesthesia to the costal margin. The heavy solution is not adaptable for operations in the pelvis or lower abdomen, unless the patient suffers from an asthmatic or cardiac condition and cannot breathe in a recumbent position. Ordinarily, spinocain and a Trendelenburg position offer more advantages in this field. After the injection has been made withdraw the spinal puncture needle and cover the wound with collodion and cotton or a small square of adhesive plaster.

Turn the patient on his back and immediately adjust the table to the degree of Trendelenburg or Fowler's position indicated. The line of anesthesia can be sharply defined by familiarity with the technic, by accuracy as to extent of expansion of the spinocain preparations, and by accurately determining the degree of Trendelenburg or Fowler's position as measured by the tiltometer.

If for any reason aspiration and mixing cannot be accomplished satisfactorily the head of the table may be raised temporarily to allow the spinocain to ascend in the spinal canal, or lowered if the heavy solution has been used, but as soon as anesthesia is obtained at the desired point the patient should be placed in the Trendelenburg or Fowler's

position as described. If this procedure is to be employed the patient must be watched constantly and tested for anesthesia. The technic of using spinal anesthesia on infants and children does not vary materially from the technic with adults. The heavy solution should not be employed with children unless one is thoroughly familiar with its actions and has had the opportunity of witnessing its use. When this form of anesthesia is to be administered to children under 15 years of age we should consider the weight and size of the child in determining the amount of spinocain to be employed. We should also bear in mind that the conus medullaris terminates at a much lower level in the infant, and to avoid complications the spinal puncture should always be through an interspace below termination of the cord. Figs. 4, 5, 6, and 7, graphically show the distance from the skin to the dura, the relative diameter of the dura of the child as compared to that of the adult, and location of the conus medullaris in an infant 2 months old, 5 and 11 years of age. The accompanying chart illustrates the amount of spinocain indicated for various ages and weights of children from 1 month to 15 years of age. It also shows the amount of mechanical expansion required to produce anesthesia on the body surface to the costal margin and approximates the average duration of anesthesia. It should be noted that anesthesia in infants cannot be maintained longer than 1 hour. This is due to the relatively small amount of spinocain used, while in older children it is possible to maintain a satisfactory anesthesia for 1½-2 hours. (See Chart 2.) The indications in surgery and obstetrics for spinal anesthesia in preference to inhalation narcosis are so logical and well founded that if the patient's welfare is to be considered a working knowledge of spinal anesthesia should be possessed by all surgeons and obstetricians so that the danger of inhalation narcosis in certain surgical and obstetric cases may be avoided and many useful lives saved.

Spinal anesthesia is not a procedure to be used indiscriminately or by the inexperienced. It may necessitate repetitions, but there are a few points that should be emphasized, and

if the minute details are ignored unsatisfactory results are sure to follow. When the anesthetic is to be injected with the patient in a prone position the posture must be essentially correct; i. e., lying on the side with knees flexed upon abdomen, head bent forward with chin resting on the chest, and back bent forward in a bow. The hips and shoulders should be in the same plane. If the shoulders are tilted and the hips vertical, or the hips tilted and the shoulders vertical, "a corkscrew spine" results. With this condition dry taps may be produced, bleeding may

be assumed at once. With the heavy solution the patient should remain sitting after injection until the anesthesia has become fixed, then, be placed in a reverse Trendelenburg position. *One should not confuse the light and heavy solutions*, for if this happens, a case of collapse may occur, due to ascent of the solution in a cephalic direction.

Morphin and scopolamin are necessary, not to intensify the anesthesia but to allay fear and apprehension. For upper abdominal work the first lumbar interspace should be selected. With patient in the prone position

Age	Weight		Height		Distance from Skin to Dura		Amount of Spinocain		Mechanically Expand to	Duration of Anesthesia
	Pounds	Kilos	Inches	CM.	Inches	CM.	Minims.	C.C.	C.C.	Minutes
1 month	8	3.6	20.8	52.7	.65	1.8	6	.40	1.	15-25
2 months	10	4.5	22.3	57.	.65	1.8	6- 8	.4 - .55	1.	15-30
4 months	14	6.6	23.7	60.4	.75	2.	6- 8	.4 - .55	1.	15-30
6 months	16	7.2	25.	63.7	.75	2.	6- 8	.4 - .55	1.	15-30
8 months	18	8.1	26.5	67.4	.85	2.2	8-10	.55- .65	1.3	20-40
10 months	21	9.9	28.3	72.2	.85	2.2	8-10	.55- .65	1.3	20-40
1 year	23	10.4	29.	73.8	.88	2.3	8-10	.5 - .65	1.3	20-50
2 years	28	12.6	32.5	82.8	1.	2.5	10-12	.65- .8	1.5	25-60
3 years	32	14.7	35.	89.1	1.	2.5	10-12	.65- .8	1.5	25-60
4 years	35	15.8	38.	96.7	1.2	2.8	12-14	.8 -1.	1.8	40-80
5 years	41	18.9	41.	104.3	1.2	2.8	12-14	.8 -1.	1.8	40-70
6 years	45	20.3	44.	111.7	1.2	3.	14-16	.8 -1.	2.	60-90
7 years	49	22.5	46.	116.8	1.2	3.	16-18	1. -1.2	2.3	80-100
8 years	54	24.8	48.	122.	1.2	3.1	18-20	1.2 -1.3	2.5	80-100
9 years	60	27.	50.	127.	1.3	3.4	20-22	1.3 -1.5	2.7	90-120
10 years	66	29.4	52.	132.	1.3	3.5	20-24	1.3 -1.6	3.	80-120
11 years	72	32.1	54.	137.2	1.4	3.7	20-26	1.3 -1.65	3.3	70-120
12 years	79	35.1	56.	142.2	1.4	3.7	22-26	1.5 -1.65	3.5	70-100
13 years	88	39.8	58.	147.3	1.5	4.	22-26	1.5 -1.65	4.	60-90
14 years	99	45.	61.	155.	1.5	4.1	24-30	1.6 -2	4.5	70-100
15 years	100	50.3	63.	160.	1.7	4.4	25-40	1.6 -2.6	5.	80-120

Chart No. 2.—A comparative study of the amount of spinocain indicated for children of various ages and weights.

be caused, or the needle may deviate to the side of the dura; unsatisfactory results will be obtained.

The size of the subarachnoid space varies in different individuals, but with a little experience one will quickly learn the extent of expansion of spinocain necessary to produce anesthesia on the body surface at various heights. Better results will be obtained if the patient is allowed to remain flat on the table for 3-5 minutes after injection, or until such time as anesthesia has reached the desired height. Then the degree of Trendelenburg is assumed as measured by the tiltometer.

For intradural sacral anesthesia, with the light solution, a 15° Trendelenburg should

the second interspace is usually the wider and more accessible, and it is the interspace of choice. In children the level of the conus medullaris should always be borne in mind. In infants it terminates at the fourth lumbar; in children 4-5 years of age, it is found between the second and third, 10-11 years at the second lumbar; it does not ascend to the dorsolumbar interspace until early in adult life. The site of puncture should be selected accordingly.

From 2 to 4 c.c. of spinocain may be used with safety for prolonged operations, provided an equalizing amount of ephedrin is employed. For nervous individuals it is always advisable to use 0.5 to 1 c.c. more than in a normal case, as it produces deeper and

more intense anesthesia, that will greatly diminish tactile sensations, which often disturb the hypersensitive patient. Never attempt to introduce spinocain except into the lumbar spine, never above the conus medullaris. Introduction of a local anesthetic directly into the cord substance may and probably will result in an instantaneous catastrophe.

Spinal anesthesia is adaptable in all classes of cases, be the blood pressure high or low, the patient young or old, fat or thin, cardiac, diabetic, alcoholic or addict. Should the blood pressure be extremely low, it may be elevated to normal by the intravenous injection of suprarenin and ephedrin combined. Our youngest patient was 2 months and the oldest 91 years old. Patients suffering from tuberculosis, bronchitis, asthma, renal toxemias, pyelitis, diabetes, or arteriosclerosis should not be subjected to the harmful influences of inhalation anesthesia. In the acute abdomen this form of anesthesia almost becomes a matter of life or death. Morbidity is lessened, convalescence shortened, and the mortality rate lowered. Spinocain offers more protection to the patient and better working facilities to the surgeon. It has been taken up as a routine anesthetic by innumerable American operators, because they realize the above conditions. The revived enthusiasm of spinal anesthesia in America can hardly be estimated. An idea of the recent increase in spinocain anesthesia may be obtained by attending any of the national surgical association meetings. It is the safest form of anesthesia we possess for operative procedures below the costal margin.

Concluding, I do not wish to persuade you to use only spinal, conduction or local anesthesia, but I wish to emphasize to you what past experiences have taught me; that with their use we can prevent the aftermath of operations, the nausea, vomiting, distention, ileus, acidosis, pneumonia and innumerable other complications, which are directly or indirectly attributable to inhalation anesthesia. Patients no longer fear an operation or dread the effects of the anesthetic.

Permit me to foretell that within 10 years local conduction or spinal anesthesia, will be the anesthesia of choice.

GENERAL ANESTHESIA; PRACTICAL APPLICATION OF ITS PHYSICAL FACTORS

M. FELLMAN, M.D.,

Jersey City, N. J.

Anesthesia, in a general sense, is so thoroughly familiar to the medical profession and so widely practiced that when the subject is mentioned its relationship to the sciences, physiology, pharmacology and chemistry is lost sight of. "What changes take place when an anesthetic is given", and "why", are questions which very often are given no consideration when it is necessary "to get the patient under quickly".

One of the simplest classifications of the signs of anesthesia includes the following: (1) Respiratory; (2) color; (3) muscular; (4) eye. The pulse might also be added but is rather an index of the operative condition of the patient; observation of its rate, rhythm and volume are important particularly in thyroid operations where very often the heart goes into a state of flutter or fibrillation, even after painstaking pre-operative care.

The agents most widely used in general anesthesia are ether, chloroform, ethyl chloride, nitrous-oxide and ethylene. Oxygen and carbon dioxide are used in combination with some of these. Ether is mentioned first because it is the one best understood, is safest in the hands of one who administers anesthetics seldom, and is the most popular. Ether is highly combustible and inflammable, while chloroform is the opposite. Both have an affinity for lipoids, and their combination with cholesterol and lecithin of the brain cells has a practical consideration.

Ethyl chloride is a colorless, very volatile liquid with an agreeable odor, is inflammable, and should be kept away from lights or fire. Due to the way it is marketed in tubes, the

pressure within which is greater than the atmospheric pressure, it will not deteriorate. Nitrous-oxide, ethylene, oxygen and carbon dioxide are true gases at ordinary temperature. Ethylene, however, is highly explosive and it is this property that has resulted in its restricted use.

Considering the physiologic effects of anesthetics, their action on the various systems is important. On the central nervous system a progressive paralysis is produced in the following sequence: (1) the higher cerebral centers involving the intellectual faculties; (2) the lower cerebral centers involving sensation and motion; (3) the spinal cord involving reflex action; (4) the medullary centers involving the vital functions of respiration and circulation. Sensation, itself, diminishes first in the back and extremities, then in the genital organs and rectum, and, finally, in the region supplied by the fifth cranial nerve. With all anesthetics breathing becomes deeper as the respiratory center is more profoundly involved but various stimuli arising from trauma or operative manipulations affect the rate, rhythm and amplitude. The illustration of this most familiar is the deep breathing that occurs when the surgeon begins to "tug" on the peritoneum when opening or closing the abdomen.

Nitrous-oxide and ethylene apparently undergo no change in the blood stream. With ether and chloroform conditions are different; both bring about a leukocytosis, and with chloroform there has been found at times a destruction of red cells. Ether acts also as a heart stimulant, while chloroform is a depressant; and ether raises the blood pressure and pulse rate, while the opposite is true of chloroform.

Action on the muscular system is an indirect one. In the initial stage, due to excitement when there is no preliminary medication, uncontrollable muscular movements occur, but at the stage of complete surgical anesthesia there is total relaxation. Upon the glandular system there is noted an early stimulation, shown by sweating, lacrimation, and mucous secretion in the throat.

Now, how may these facts be applied in a practical way? Going back to the action on the central nervous system, if we know that the lower cerebral center controlling sensation and motion, and the spinal cord governing the reflexes, are abolished second and third in order respectively, our guidance to the surgeon in starting his operation is that much better. Also, aware that the vital centers are last to be involved, our danger line is established and the anesthetic should not be pushed; once this stage is reached the novice or the person who administers anesthetic infrequently may be unable to bring his patient back, particularly if the operative procedure has been a very shocking one. In addition, knowledge of the diminution of sensation will enable one to spare deep anesthesia where the operation is on the back or extremities, because sensory loss occurs there first. Similarly, the surgeon is instructed to delay beginning his work in the region of either the trigeminal nerve or the genitalia or rectum because sensation in those areas is abolished late. These precautions often prevent the upsetting of instruments and soiling the operative field through the patient's having "jumped about on the table".

Among the signs of anesthesia, those pertaining to respiration are probably the most important. It is in the pulmonary system that the changes of inhalation anesthesia are initiated and the variations in breathing, taking into consideration character, amplitude and rate, are among the best guides in determination of the stage of anesthesia.

"The physical theory of respiration", according to Howell—"assumes that the gaseous exchange between the lungs and the tissues takes place in accordance with the physical laws of the diffusion of gases. That is, if a permeable membrane separates 2 volumes of any gas, or 2 solutions of any gas, at different pressures, the molecules of the gas will pass through the membrane in both directions until the pressure is equal on both sides. After equilibrium is established and the pressure is the same on both sides, the diffusion is equal in both directions, and the condition is the same as if there were no fur-

ther diffusion. This explains how normally oxygen with its pressure of 100 mm. Hg. passes from the alveoli of the lungs to the venous blood and the tissues and why carbon dioxide with its pressure of 42.6 mm. Hg. in the venous blood passes to the alveoli and the arterial blood."

Oxygen and carbon dioxide are the 2 gases most important in control of the respiratory center. Depth of breathing is governed by the carbon dioxide, and rate by the oxygen. Because of the need of carbon dioxide, re-breathing is very important, especially in gas anesthesia. In an indirect manner it also brings about greater relaxation. By deepening respirations, carbon dioxide better aerates the blood. Consequently, the tissues are more abundantly supplied with oxygen and the tendency to muscle tension is diminished.

During induction, the patient for several breaths acts as if asleep. As the amount of anesthetic is increased, respirations are slightly more labored in character and increase in rate and amplitude. Due to reflex stimuli, the patient holds his breath for a few seconds, but then resumes the usual rhythm after the apnea. As anesthesia deepens, the rate is slower, amplitude deeper and length of inspiration and expiration almost equal; in very deep stages the respirations are very shallow.

Color is next in importance in the signs of anesthesia. This is true of nitrous-oxide and ethylene, where a pink shade should be maintained. It is dependent entirely upon the amount of hemoglobin in the blood unsaturated with oxygen, and the ratio between these two governs the degree of cyanosis.

There are 2 types of patients who bear very careful watching; the anemic and the plethoric. In the first, the red cells are greatly reduced in number and, although only a small amount of the anesthetic is given, the patient may be "deep". In the latter, due to the increased blood supply, not enough oxygen may be given and the hemoglobin being so unsaturated brings about a

cyanosis that makes one think the patient is in one of the late stages of anesthesia, whereas he is really very "light".

Third in importance are the muscular reactions. Certain groups of muscles, by relaxation guide the anesthetist. Of these, the masseteric, eyelid and diaphragmatic are most often selected. The masseteric sign consists in a relaxation of the muscles of the lower jaw permitting the mouth to be opened and closed without resistance. The lid sign is said to be positive when upon opening the eyelids they remain separated in a fixed position. In determining the diaphragmatic, the anesthetist glances at the abdominal wall and notices whether it sinks in with each inspiration. Pulling in of the abdomen is a sign of very deep anesthesia.

Taking up the eye signs, as the last of the group, these must be watched for oscillation of the eyeball, size of the pupil and its reaction to light; these last 2 points may not be dependable if preliminary medication has been given, but movement of the eyeball is not affected and if it oscillates the patient is "light". When, however, the globe is fixed and in the center, then the stage of surgical anesthesia has been reached. Reaction of the pupil when not complicated by preliminary medication is important. It is governed by 2 sets of muscles, the dilator and sphincter pupillæ; and 2 innervations, the sympathetic supplying the long ciliary nerve to the dilators and the third cranial nerve supplying the short ciliary fibers to the sphincter. In the early stage of anesthesia the dilator fibers are stimulated, causing the pupil to expand. As narcosis deepens the constrictor fibers act, causing the pupil to become pin-point. Finally, when the limit is reached, the constrictor fibers are paralyzed and the wide, staring, dangerous-stage pupil appears.

This completes consideration of the important phases of anesthesia. The classification is a simple one but often too carelessly followed. Its careful use would tend to bring about better care of the patient and hasten postoperative recovery.

PREVENTION OF BLINDNESS BY OPHTHALMIA NEONATORUM

LOUIS WEISS, M.D.,
Newark, N. J.

In the latter half of the nineteenth century, Pasteur demonstrated that germs caused sepsis; Lister introduced antiseptics; Semmelweis and Holmes showed that in many cases, ophthalmia neonatorum could be traced to an infected vagina and the attendant's unclean hands. Neisser first described the gonococcus in 1879; the microscope revealed the gonorrheal germ as a frequent infective agent.

Apparently with the above as a background, Credé, in October 1879, began his prophylaxis in new-born babies' eyes. The first solution he used was boric acid 1:60, because he said that he considered it the mildest remedy. A month later, in November, he began the use of a 2½% solution of silver nitrate instilled into the lower conjunctival sac with a medicine dropper. At the same time he used salicylic acid solution (strength not stated) for washing the outside of the baby's eyelids. Six months later, June 1, 1880, Credé reduced the silver nitrate solution to 2%, and discontinued use of the medicine dropper, applying the solution to the cornea with a glass rod. He also changed to plain water for cleansing the eyelids, and only applied cloths saturated with salicylic acid solution when conjunctivitis occurred. Credé had a new solution of silver nitrate prepared every 6 weeks, and kept it in a black glass bottle with ground glass stopper. The glass rod was 15 cm. long, 3 cm. thick and smooth and round at both ends. He kept both in a drawer of the baby's dressing table under lock and key.

In 1884, in Berlin, appeared a monograph in German entitled "The Prevention of Ophthalmia Neonatorum" by Carl Sig. Franz Credé. Page 9 of that article contained the following as paraphrased from the original to the best of my humble ability:

"In order to avoid any future misunderstanding, I herewith set down in writing the exact

treatment as practiced at the institution in Leipzig.

(1) Attention to the child's navel. (2) Thorough cleansing of the baby's body in the usual way. (3) Place the infant in the bath. (4) Cleanse the baby's eyes on the outside, that is, remove any material clinging to the lids, such as sebaceous matter, not with the bath water but with other ordinary clean water, using a clean cloth, or better still, sterile absorbent cotton. (5) Place the child on dressing table. (6) Application of a 2% silver nitrate solution to the baby's eyes as follows: With 2 fingers separate the lids a little; with a single droplet hanging at one end of the glass rod, approach the eye until the droplet comes in contact with the center of the cornea, then withdraw the glass rod. Should a light redness or swelling of the lids with mucous discharge supervene in the next 24-36 hours, the applicator of silver nitrate solution is not to be repeated. (7) Dressing of the infant."

From the foregoing can readily be seen the awe in which Credé held silver nitrate solution as a prophylactic; with what trepidation he approached the baby's eyes; and with what misgivings he applied it; what admonition he gave to others who might attempt the same procedure! He proposed silver nitrate solution as a prophylactic to be used but once in any case in which a slight inflammation might appear. Credé's first thought probably was to prevent disease germs from getting a foothold on the conjunctiva, and therefore he used a mild solution of boric acid as an eliminant. Not getting the results anticipated, he went to the other extreme a month later and used a caustic solution. He tried a 2½% solution of silver nitrate for 6 months, and decided that it, too, was unsatisfactory. He reduced it to 2% and discontinued its instillation into the conjunctiva. Still believing in the efficacy of a 2% solution, Credé sought its use elsewhere and in a different way. He reduced the amount to a droplet on the end of a thin glass rod, and carefully deposited that upon the center of the cornea to which he hoped it would be limited. With this method, also, the silver nitrate solution had its irritating effect upon the conjunctiva as soon as the lids were closed.

What then was the reason for Credé's phenomenal reduction of ophthalmia neonatorum from 10.8% to 1 or 2%? The explanation can be inferred from the fact that the use of silver nitrate solution was coincident with employment of thorough cleanliness at every step.

Since Credé's time, 2 important changes, universally known, have been made in the prophylaxis of ophthalmia neonatorum: (1) reduction in most instances from 2% to 1% solution silver nitrate; (2) instillation of silver nitrate solution with a medicine dropper upon the lower conjunctiva, in place of its application with a glass rod upon the cornea. It is clear that these changes have distinct advantages. The solution now in use is half as caustic as Credé's, and its administration is much more simple. It entails less handling, and is therefore not as apt to traumatize the conjunctiva and cornea. Charles records a case that was reported years ago by Weiner, who saw a child die of bleeding from the eyelids after the regular Credé's method had been employed. Statistics show that the present method is at least as efficient as Credé's, which, as a matter of fact, has never been in general use. The following citations will tend to justify the above statements:

Professor Charles, Editor of Ophthalmology in *Progressive Medicine*, June 1928, p. 380, states: "In my own cases I prefer an application of a 1% solution silver nitrate from a dropper on the everted lids avoiding direct contact of the solution with the cornea until it has been diluted somewhat by the tears in the sac."

Professor Edgar in his *Practice of Obstetrics*, p. 834-835, writes that "1 or 2 drops of a 1% silver nitrate solution should be dropped into each conjunctival sac. This may be washed away in a moment or two with salt solution if desired. It has now become with most obstetricians in maternity service a matter of routine practice to use this 1% solution in the eyes of all infants, and since the method was introduced the number of cases of ophthalmia neonatorum has decreased enormously."

The National Society for the Prevention of Blindness, on page 6 of its 1928 pamphlet, "Seeing Through Life", reports as follows: "Statistics received from the American Foundation for the Blind on new pupils in schools for the blind who are blind from ophthalmia neonatorum indicate that the incidence for the year 1928 was 9.1%, a reduction of almost 68% in the past 20 years."

The News Letter, a bimonthly publication of the National Society for the Prevention of Blindness, Inc., in the issue of February 1928, pages 10 and 11, declares that in 1922 the city and state of New York each established a Sanitary Code requiring the instillation of a 1% solution nitrate of silver or an equally effective agent, in order to prevent the development of ophthalmia neonatorum in the eyes of all new-born children.

Further emphasizing the importance of this procedure, the Department of Health of the City of New York prepared "Instructions to Midwives for the Care of the Eyes of New-born Babies": "As soon as the baby is born carefully clean the eyelids with water that has been boiled, using a fresh piece of linen cloth or clean absorbent cotton for each eye. Wipe the lids, from the nose outward, without opening the lids. Then the eyelids must be separated and 3 drops of a 1% solution silver nitrate dropped into each eye."

In the *Ophthalmic Year Book*, Volume XIX, 1923, page 361, it is recorded as follows: "Martin, as Commissioner of Health of the State of Pennsylvania, brought before the Section on Ophthalmology of the College of Physicians of Philadelphia, the question whether legislation should be passed requiring the application of silver nitrate to the eyes of every new-born baby. The state of Pennsylvania already requires midwives to instil 1 drop of a 1% solution silver nitrate into the child's eyes promptly after birth. In discussion, de Schweinitz remarked that the use of silver method for prophylaxis should be in the hands of those who were competent to use it. He had seen many severe reactions from its use by those who were ignorant of the proper technic. Nicholson did not think the method a preventive in every case. Since 1907 the midwives of Philadelphia County had delivered 33,726 babies. In 85 reported cases of ophthalmia neonatorum, silver had been used prophylactically in every instance. Lehrfeld suggested that instillation of only 1 drop of any solution might give a false sense of security. A bland antiseptic solution other than silver should be used, and, instead of 1 drop, several drops should be instilled on 3 successive days."

In *Progressive Medicine*, June 1909, page 285, Thomson is quoted thus: "If 1% silver nitrate were used instead of 2%, there would be less catarrh and equal protection. Simple cleansing methods of prophylaxis, without the use of germicidal applications to the eyes, are nearly as good as the Credé method, provided (a) the details are faithfully and intelligently carried out; and (b) infection has not already taken place."

The opinion that weaker solutions of nitrate would be at least equally effective as a prophylactic is shared by Greeff, who believes that for the Credé method of prophylaxis, 0.25% solution is strong enough. He maintains that in new-born children every case of gonococcus conjunctivitis is curable, and states that at the Charité, in Berlin, the results of treatment have been better since the 0.1% solution silver nitrate has been employed than they were under stronger solutions. With the weaker solution the eyes were irrigated every 2 hours, day and night, until the violence of the disease had begun to abate. These more frequent applications may account for the greater efficiency of this treatment, since strong solutions of silver nitrate cannot be safely applied to the conjunctiva more frequently than once in 24 hours, and it is sometimes better to make the intervals still longer.

Finally, it is noted in *Progressive Medicine*, June 1903, page 357, that Wilson prefers to rely upon a different line of prophylaxis, including the antepartum care of the birth canal, thorough cleansing of the lids after expulsion of the head, and noninvasion of the conjunctiva by separation of the lids until there is the appearance of a typical discharge. It may well be questioned whether a part of the good results ascribed to the Credé method may not be due to some of the other precautions which now form a part of antiseptic midwifery and upon which Dr. Wilson relies. Thus among 4956 deliveries in 2 Philadelphia lying-in hospitals (the Credé method having been used for 802 cases only), I found that there had been but 6 cases of ophthalmia, and the sight of 1 eye only had been damaged.

The Credé method and the method in general use can each be considered as consisting of 2 procedures: (1) the silver nitrate application and (2) the thorough cleanliness applied in every detail. The silver nitrate applications vary greatly. Credé's method is the corneal application with a glass rod, and the present method is a conjunctival instillation with a medicine dropper. The cleanliness advocated by Credé is practically identical with ours. Credé's results and ours are about equal. Credit for the prevention of blindness in ophthalmia neonatorum undoubtedly belongs to the diligent cleanliness common to both methods, and not to any solution of silver nitrate however applied.

In many instances, physicians have abandoned the use of silver nitrate solution, for one of the synthetic silver preparations as a prophylactic in this disease. Perhaps the adoption of agents that produce an ischemia rather than a redness of the conjunctiva may aid painstaking cleanliness to lead us nearer than the present attainment toward the goal—the prevention of blindness from ophthalmia neonatorum. We should remember that ophthalmia neonatorum is a purulent inflammation of the conjunctiva. The cornea is only involved when the inflammatory process goes beyond the limbus. That is what makes blindness preventable. Specific application should be made primarily to the conjunctiva which is the method in general use, and not to the cornea, which is Credé's method.

PROPHYLAXIS

Prevention of blindness in the new-born should begin early in pregnancy. The 2 main factors to consider are the passage, or vagina of the mother; and the passenger, or the infant.

Order douching of the vagina once or twice daily up to the time of the child's birth, with 2 quarts of a warm dilute sterile solution sodium bicarbonate, boric acid, normal saline or the like. Advise bland lubrication of the vagina on retiring. Any purulent discharge or disease of the parturient passage should receive proper attention.

At the beginning of labor, douche the va-

gina with a warm, sterile, bland solution. After rupture of the membranes, if some of the amniotic contents remain adherent to the vaginal walls, use large cotton sponges dipped in warm sterile water, and in the grasp of long handled sponge holders, wipe the passage clean, and follow that with a mild warm sterile douche. Let the mother assume the Fowler position to help drain away the discharges incident to childbirth, and thereby tend to prevent infection in the mother and in her baby's eyes. Facilitate expulsion of the child by lubricating the vagina with a half ounce of liquid petrolatum. Assist delivery to prevent injury to the structures involved from prolonged pressure, by hypodermic stimulation and by the use of instruments as indicated.

Having considered the vaginal passage, our attention is next directed to the newly born passenger. On a well padded table turn the infant on its back, face up under good illumination, electric preferred. With clean hands and fingers, and sterile cotton or gauze wipes wrung out of sterile water, cleanse the outside of the eyelids, the canthus and the rest of the face. Avoid pressure on the eyeball. Inspect the conjunctiva of each eye, either by gently stretching the lower lid downward with one finger or by carefully separating the lids with the thumb and index finger of one hand. Use a magnifying glass or a loupe if necessary. Repeat these inspections daily for about a week. If the conjunctiva is normal, cleansing of the outside of the eyelids only is necessary. If a conjunctival injection is present, a remedy is indicated that will constrict the blood vessels and cause an ischemia of the conjunctiva with the least irritation or pain. Some of the ischemic remedies that may be suggested are cocain, adrenalin, ephedrin, epinephrin, epinin, etc. The first may be used alone. The remainder may be combined with holocain, butyn, novocain or eucain. Select your prophylactic for this affection as you choose your remedy in other ailments.

Instil 2 drops of your favored ischemic agent, of standardized strength, into each

lower conjunctival sac once or more often daily for about 7 days to prevent an ophthalmia during the period of its usual inception. If the threatened inflammation has subsided, only the usual daily cleansing of the outside of the eyelids is continued.

TREATMENT

In ophthalmia neonatorum or purulent conjunctivitis, use the same remedies which are suggested under prophylaxis, with perhaps greater frequency according to the severity of the case, and if desired use a stronger solution. Try to produce an ischemic or normal conjunctiva. Professor Fox in his Practical Treatise on Ophthalmology, on page 142, says, "adrenalin (1:3000) may also be applied 4 times daily to assist in contracting the blood vessels, and will tend to prevent the liberation of serum, and thereby lessen the pus products".

The purulent discharge is kept under control by having 2 or more attendants in relays, one at a time constantly at the side of the infant, lying on its back, day and night, awake or asleep, feeding and dressing excepted. With the clean fingers of one hand gently separate the lids for an instant or long enough to allow the pus to exit, and then wipe it away from outside the closed lids with moist sterile cotton or gauze every few moments. The interval of this procedure and of the instillations is gradually lengthened as the discharge shows abatement. This industrious attention may limit the ophthalmia to 24 to 48 hours, whether it occurs in one or in both eyes treated at the same time.

Holt says: "The most important thing is to keep the eyes clean."

Dr. E. M. Alger, in Practical Medicine, Series 1916, Volume III, page 34, warns against too severe measures being used in treatment, believing that more eyes are lost through violence of the treatment than through violence of the disease itself, since the greater danger is ulceration of the cornea from traumatism. He believes the watchwords should be *cleanliness, drainage, and gentleness*.

Autogenous or stock vaccines, or other hy-

podermic remedies, may be used if required. Complications should be met with promptness. All other precautions, general and local, should be used to safeguard the health of the child.

COMMON DISORDERS OF THE COLON

LOUIS L. PERKEL, M.D.,

Attending Gastro-Enterologist at Jersey
City Hospital,

Jersey City, N. J.

In selecting the title for this paper, the term "Disorders" instead of "Diseases" of the colon was chosen advisedly. "Disorders of the Colon" is an all-inclusive group embracing both the heretofore relatively neglected conditions of functional origin, as well as the more obvious and better known organic diseases, that affect the large bowel. It is the object of this paper to outline the more common forms of the latter group as well as to stress the importance of recognizing the former and more prevalent class of cases, in which the apparently benign dysfunction often renders its victims just as helpless and miserable as do the more grave organic conditions.

Before discussing these disorders of the colon, it would be helpful to briefly refresh our knowledge of its anatomy and physiology. The colon is commonly considered as that portion of the intestinal tract beginning at the ileocecal valve, or to be more exact, at the blind end of the cecum, and ending at the junction of the pelvic colon and rectum. Its average length in the adult is about 5 feet and its average capacity is from 1 to 2 liters; these figures are subject to wide variation in health as well as in disease. In structure, the large intestine differs from the small, not only in being of wider caliber but also by having 3 narrow longitudinal bands of smooth muscle, the tenia, which begin at the cecum at the point of insertion of the appendix. It is through these tenia and the circular muscle fibers that the colon is thrown into numerous sacculations, the so-called haustra-

tions, which give the colon its characteristic appearance. This morphologic feature of the colon should be kept in mind, for, as will be shown later, upon its deviation from normal is based the interpretation of certain symptoms and signs in some forms of colonic disturbance. Normally the haustra are symmetrically arranged, evenly spaced and balanced, with the lumen of the gut centrally placed. The depths of the intrahaustral indentations indicate the amount of tonicity manifested by the tenia and circular muscle fibers. This regular scalloped appearance is maintained by a delicate balance of the nervous control of all these muscle fibers. The narrowest point of the colon is at the splenic flexure, because attachment of the phrenicocolic ligaments here causes a certain amount of kinking. The colon is also fixed at the hepatic flexure by the hepaticocolic ligament. The cecum and transverse colon are normally freely movable. Variations in position of the colon are very common. The cecum normally situated in the right iliac fossa, may, however, by virtue of congenital absence of the ascending colon, be found high in the right upper quadrant under the liver. Conversely, as an exaggeration of its embryologic descent, it may be situated low, hanging over the pelvic brim, or even in the true pelvis. The transverse colon, because of its long mesentery is subject to very wide variations in position. The sigmoid, however, is the most movable segment of the colon. Because of its length and free mobility, it presents the widest range of variations. The colon may present many bizarre configurations as the result of one or more anomalous or congenital conditions, such as the absence or shortening of one or both of the flexures, redundancy, and transposition of the viscera.

The principal function of the colon is the absorption of water and concentration of the feces. What little digestion takes place is due to activity of the digestive enzymes carried into it with the chyme from the small intestines. The amount of food absorption in the colon is negligible.

Many varieties of bacteria are normally found in the colon, the most prevalent being

the bacillus coli and the pyogenic cocci. The cecum being centrally located in the intestinal tract, from the physiologic standpoint, contains the greatest number of bacteria, and is therefore fittingly called the intestinal cess-pool. It is interesting to note that about 1/3 by weight of the feces consists of bacteria.

Investigators have found 2 sets of movements in the colon. Intestinal peristalsis is more or less continued as the chyme passes into the cecum. Besides this forward propulsion, there also takes place a backward movement or antiperistalsis from the transverse colon to the cecum, thus giving opportunity for further absorption of water from the fluid contents of the bowel. Hertz, Cannon, and Holzknecht observed a relationship between the intake of food and the colonic movements, with resulting defecation—a sort of gastrocolic reflex. In certain nervous states this phenomenon becomes very pronounced.

As this paper is chiefly concerned with the common disorders of the colon, it will suffice to just mention in passing one of the rare conditions occasionally seen therein, namely "Hirschsprung's disease" or congenital idiopathic dilatation of the colon. This condition usually occurs in infants and children under 10, males predominating. Its cause is probably a congenital malformation of the colon. Clinically, it is characterized by severe constipation associated with abdominal distention and visible peristalsis. In adults, a similar condition may arise as the result of long continued obstinate constipation. X-ray examination usually clinches the diagnosis by showing marked dilatation of the colon. Its treatment, which is both medical and surgical, is usually not satisfactory.

Among organic diseases of the colon are carcinoma, diverticula, and the various inflammations. Redundancy of the sigmoid is considered partly organic and partly functional in origin, inasmuch as a certain amount of redundancy is normally seen therein.

Although malignant tumors like sarcoma and lymphosarcoma, and benign growths such as polyps, adenoma and lipoma, are occasionally found in the colon, carcinoma is

by far the commonest growth seen therein, and is therefore usually the type inferred when speaking of colonic neoplasms. It has been estimated that of all cases of intestinal carcinoma more than 50% are found in the rectum, and more than 40% in the colon proper, leaving less than 10% in the small intestine.

Carcinoma in the colon most commonly occurs in the fourth and fifth decades, although carcinoma in patients of younger age is seen here more frequently than in any other part of the gastro-intestinal tract. Clinically, it is characterized by the presence of abdominal pain, irregularity of bowel movement, and the general systemic manifestations of malignancy such as loss of weight and strength, anemia and anorexia. In about one-half of all cases the tumor is palpable. The most conspicuous symptom is pain, which may be in the form of intermittent colic due to muscular contraction above the obstruction, or a constant dull ache due to fixation of the colon by extension of the growth to surrounding structures. The bowels are usually constipated, though commonly diarrhea alternates with constipation. The stools may contain blood and mucus due to the ulceration, secondary inflammation of the colon and breaking down of the growth. Finding of these abnormal fecal constituents is especially noticeable when the lower bowel is involved. Among other corroborative findings in carcinoma of the colon are visible peristalsis, distention and frank and occult blood in the stools.

Many cases, however, do not present so typical a picture. It is here, particularly that the radiographic findings are so helpful and conclusive. The presence of a filling defect, usually irregular in outline and sometimes corresponding to a palpable tender mass, together with obstruction to the passage of barium at the defect and subsequent dilatation of the colon proximal thereto, form a very characteristic picture. A detailed discussion of prognosis and technic of treatment is beyond the scope of this paper. It will suffice to strongly emphasize the fact that the only hope for cure

lies in early diagnosis, before metastases have occurred and before the growth has attained so large a size, with adherence to surrounding structures, that complete radical surgical treatment is impossible. Many surgeons prefer the two-stage operation of first relieving the obstruction and resulting toxemia by a simple operation like colostomy, and subsequently resecting the mass after the patient has acquired additional strength. Operative mortality is still too high, being estimated at about 50%.

Cruveilhier, in 1849, and Virchow, in 1853, were first to describe diverticula of the colon. In the large bowel the most common location of diverticulum is the sigmoid, occasionally in the descending and transverse colons, never in the rectum. They consist of small hernial protrusions of mucous membrane through the muscular coat of the bowel. If not complicated by secondary changes they give rise to no symptoms and are only accidentally discovered by postmortem, exploratory or x-ray examinations. To distinguish this benign type from the one about to be discussed, Case, in 1914, coined the term "diverticulosis" to indicate the absence of inflammation in contrast to the complicated form known as diverticulitis. Usually they are the multiple and occasionally may number over 100. Appearing and acting like small vermiform appendices they are subject to the same pathologic processes. They may undergo inflammation, perforation, abscess formation and may give rise to the signs and symptoms of a general or localized peritonitis. In the sigmoid they often produce a hyperplastic perisigmoiditis which forms a tumor sometimes indistinguishable from carcinoma, as was first shown by Moynihan, in 1906.

Most of our present knowledge of diverticula and their pathologic manifestations is the result of exhaustive and painstaking work of Telling, in 1908. More recently Case, of Battle Creek, has made additional important contributions on this interesting subject. The presence of diverticulitis should be considered in a case presenting the signs and symptoms of acute appendicitis, but on the left

side. Case has called this form the pseudo-appendicitis type of diverticulitis. The treatment is obviously the same for both conditions. If the hyperplastic inflammation in the sigmoid causes a tumor and obstruction, the obvious treatment is surgical, especially since the Mayos have found that about 1/3 of all cases of carcinoma of the sigmoid had begun in a diverticulitis. Sigmoidoscopy is very helpful but of course should not be used in the acute stage of the disease. Roentgen-ray examination with a barium enema is the most useful diagnostic aid at our disposal. The appearance of small extraluminal, rounded or oval collections of barium, especially after the colon is emptied, is typical.

As Case has well proved, medical treatment has its place both as a prophylactic measure against the development of infection, by preventing constipation and the associated colitis, and therapeutically, in those cases where the process is still confined to the colonic wall. He advises a strict hygienic regimen, lactovegetarian diet, saline irrigations of the colon and sometimes large doses of bismuth or barium. Nevertheless, in every case, as the conditions arise, the accepted surgical criteria should be invoked in deciding whether or not operation should be undertaken.

The colon is subject to chronic inflammation in many conditions and from a variety of causes. In syphilis and tuberculosis the colitis seen is part of, or really secondary to, the general systemic infection. Colitis may result from such constitutional diseases as gout, scurvy, pellagra, leukemia, pernicious anemia, hyperthyroidism, and Addison's disease. It is also conspicuous as part of the pathology in the specific infections such as dysentery, either amebic or bacillary. An ulcerative colitis may result from or be a complicating condition in carcinoma, diverticulitis or chronic uremia. It may also arise from the local colonic irritation in mercury and arsenic poisoning. Because of its relatively frequent occurrence, tuberculous colitis is the only one of the above that will be further discussed. Lastly, chronic colitis occurs as an independent intrinsic disease.

The frequency of tuberculosis in the colon may be surmised from the recently reported postmortem statistics showing that from 70 to 90% of patients dying from advanced pulmonary tuberculosis had tuberculosis of the intestines. The latter apparently has a predilection for the ileocecal region, as was first brought out by Stierlin. This investigator, in 1911, described a rather characteristic radiographic sign, bearing his name. This so-called "Stierlin's phenomenon", which is pathognomonic of cecal tuberculosis, is manifested by an irregular filling defect in the cecum, shown roentgenologically both by the oral and rectal administration of an opaque mixture. This localized absence of the normal barium shadow is due to a combination of the disease process displacing the barium, together with the accompanying marked spasticity. The cecum appears to be completely intolerant of barium which under the fluoroscopic screen is vividly portrayed by the stream of barium jumping the gap, as it were, when the cecum is reached. The normal haustral markings are absent in this region. Laurason Brown, of Trudeau Sanitarium, relies mostly on these findings in diagnosing intestinal tuberculosis. Clinically, tuberculous colitis is characterized by recurring attacks of diarrhea, the stools containing mucus and pus and sometimes blood. Occasionally, a tumor forms in the cecum as the end-result of tuberculous inflammation, adhesions and cicatrization. Differentiation from carcinoma is sometimes difficult. The clinical findings of pus and blood and occasionally tuberculous bacilli in the stools, together with evidences of pulmonary tuberculosis and palpation of a rather elongated tumor in the right iliac fossa, favor the diagnosis of tuberculosis of the cecum. Intestinal obstruction may result, as in the case of any intraluminal tumor. The treatment of cecal tuberculosis with tumor, besides the generally accepted hygienic regimen and ultra-violet radiation, is essentially surgical.

Chronic colitis, as an intrinsic disease, manifests itself in several forms, really representing the various gradations of severity of the inflammatory process ranging from the simple catarrhal to the advanced ulcerative

conditions. Thus, the symptoms of constipation, or diarrhea, passage of mucus and blood, abdominal pain or colic, and wasting are common to all forms, but in a degree proportionate to severity of the pathologic process in the walls of the colon.

Mucomembranous or mucous colitis occurs almost always in people of disordered or unstable emotional states. Osler stated that it was a disease peculiar to hysteric and neurasthenic individuals. Its etiology and pathology have not definitely been established. Almost every form and variety of therapeutic procedure, from oral, intramuscular and intravenous therapy, colonic irrigations, vaccines, physiotherapy and even psychotherapy have been advocated. The last mentioned is probably the most useful combined with sensible hygienic treatment, including a bland nourishing diet. As in all medical conditions each case requires individual study and care.

Ulcerative colitis is characterized by intermittent attacks of severe diarrhea with the passage of mucus, pus and blood, tenderness over the course of the colon and general prostration. Loss of flesh may become extreme in these cases. The diagnosis is confirmed by characteristic x-ray findings and the sigmoidoscopic examination. In the former, the colon takes on a characteristic smooth outline with complete loss of haustral markings, especially noted in the descending colon and sigmoid. The sigmoidoscope reveals denuded, ulcerated and bleeding areas of mucous membrane which may become considerably thickened. The condition is always severe and incapacitating, with a not very cheerful prognosis. Accepted treatment consists of rest to the irritated bowel, soft, semi-liquid diet, and sometimes the use of opiates to help quiet the bowel. Local treatment, lavage and applications of dry powders, is sometimes helpful. When these measures fail surgery is occasionally resorted to, but with questionable results.

Prevalence of spastic colitis, or irritable colon, as a common disorder of digestion has recently been emphasized by several investigators, notably by Kantor in the contribution of some valuable work on recognition and

management of functional colonic disorders. Kantor claims that over 50% of patients with digestive complaints show some evidence of colitis. This apparently functional condition may result from the ill-effects of chronic constipation, with abuse of cathartics and indiscriminate colonic irrigations, as well as the irritation of the intestinal tract by improper food and from excessive bacterial action. Among other etiologic factors that have been advanced are instability of the autonomic nervous system, the effects of adhesions and certain congenital anomalies, such as low cecum and redundant sigmoid, and the mental attitude of the patient. Colitis presents a variety of symptoms which may imitate those seen in appendicitis, cholecystitis, peptic ulcer, cancer, and renal stone, depending upon the region of the colon mainly involved. The stools usually contain mucus and the lower colonic segment as viewed through the sigmoidoscope may be normal or show some congestion. Palpation of the abdomen may elicit tenderness over the course of the colon, and the spastic distal colon may be distinctly palpable.

Gross examination of the feces after the standard Schmidt diet usually reveals a soft mushy sour-smelling stool mixed with mucus, and acid in reaction. As shown by Kantor, x-ray examination is extremely helpful in corroborating the diagnosis. The pathognomonic radiographic findings are as follows: (a) hypermotility of the colon, as shown by advance of the barium column beyond the splenic flexure at the 6-hour observation; (b) alteration in colonic form, as shown by irregularity or absence of normal haustral markings, giving the colon a feathery, clump-like or ribbon appearance; (c) increased gas content of the bowel; (d) ileostasis, as shown by the considerable residue of barium in the ileal coils at the 6 and 9 hour observations.

This alteration in normal haustral configuration is due to disturbance of the delicate nervous control of colonic muscle fibers, as was pointed out in the preliminary remarks on anatomy of the colon. One can readily imagine how any nervous influence upsetting this delicate balance may throw the normal

regularity out of gear and produce characteristic radiograms.

Treatment of colitis begins with ruling out or treatment of any primary focus of irritation in the gastro-intestinal tract. Further colonic irritation must be curtailed by withdrawal of vicious cathartic and irrigation habits. A carefully regulated, bland diet is given, aided perhaps by judicious administration of sedatives and antispasmodics to help subdue over-activity of the colon. Mental treatment should not be neglected, as was pointed out under mucous colitis, which may be considered as an advanced form of spastic colitis.

The subject of chronic intestinal stasis opens up a large and interesting field of scientific controversy concerning the presence and action of Lane's kinks, the existence and alleged ill-effects of auto-intoxication, and the much mooted question of surgical intervention for its relief. Einhorn, Bassler and Hurst do not attach much significance to these bands or membranes which Lane would have us believe are volitional in origin and produce kinking at various points in the intestinal canal causing a mechanical stasis and subsequent auto-intoxication. Each side of the controversy is supported by eminent authorities, but the subject has not yet reached the necessary crystallization to be of real, practicable, scientific application.

This brings us to the discussion of atonic constipation, which is accepted as the underlying condition producing chronic intestinal stasis. It is the most common form of constipation, being met with in both sexes and at practically all ages. The main theories advanced concerning its etiology are: abnormal innervation of the intestines; alimentary errors; Lane's kinks; and, finally, that of Adolph Schmidt who attributes the condition to small fecal residue resulting from an over-utilization of food products with concomitant lack of normal bacterial and ferment action. Clinically, the condition is characterized by irregular bowel evacuations at long intervals, together with lassitude and a variety of discomforts of a nervous nature.

Roentgenography reveals a dilated colon with diminution in the haustral indentations

and usually with large amounts of gas. Ileostasis and redundant sigmoid are common accompaniments. When the distal colon is involved we have the condition known as dyschezia. In extreme cases barium is still seen in the colon many days after its ingestion. In the treatment of this very common condition almost everything has been tried. Main reliance, however, is placed on bowel hygiene, a bulky, large residue diet containing bran and agar, mineral oil, abdominal massage and exercise. Sometimes enemas are resorted to, especially in the dyschezia type where small retention oil enemas have proved very useful. All purgative drugs and mineral waters in every conceivable combination have been advocated.

It is quite obvious that each case of chronic constipation requires individual study to determine its particular underlying etiology and pathology, in order that the treatment be put on a rational basis. Thus, in constipation of spastic colitis the treatment by sedatives and a smooth bland diet is contrasted to that in the atonic form where the colon needs stimulating treatment with bulky large-residue-forming diet.

To conclude, in all cases of colonic disorders, the possibility of organic disease, as well as the more common functional disturbances, should be kept in mind. A thorough understanding and a proper evaluation of the clinical, roentgenologic, laboratory and other special findings will usually guide one to a correct diagnosis and rational management.

MEDICOLEGAL ASPECTS OF OCCUPATIONAL DISEASES

MAX KUMMEL, M.D.,

Newark, N. J.

Introduction. In the past 5 or 6 weeks the newspapers have brought to our attention the sensational news that a law suit was started against a well known corporation for damages resulting from the effects of radium poisoning or necrosis transmitted from mother to child. In the past 5 or 6 years

New Jersey has experienced the occurrence of a great number of cases of industrial poisoning resulting in either temporary disability or permanent impairment of function and, not a few, terminating fatally.

Almost every new process in industry takes its toll of human life. In 1923, when ethyl gas was introduced, out of 28 men directly exposed to this substance, 6 died of severe lead encephalopathy, 4 became insane, and the rest have been suffering from the effects of that poison on the vital organs and central nervous system. When the luminous dial was introduced into watch making, again we found 10-12 women, dial painters, dying from a peculiar form of anemia and necrosis. Similarly, when genuine leather became expensive and scarce, and was replaced by an artificial substitute, severe cases of aplastic anemia with numerous fatalities was the price paid by workers engaged in its manufacture. These are only a few instances of the occurrence of occupational diseases in the every day life of the American workman.

Occupational diseases are defined as injuries and disturbances of health contracted in industrial pursuits and other vocations in life as a result of exposure to toxic agents, infectious organisms, mechanical irritants or other conditions inimical to life. No definite classification of occupational diseases is found in the literature. They vary from acute attacks terminating fatally to the slow insidious chronic forms of industrial poison with gradual deterioration of vital centers and organs. For the present, we may divide them into 3 general classes:

(1) Occupational diseases due to toxic effects of exposure to chemicals such as lead, mercury, arsenic, phosphorus, chromium, wood alcohol, radium, benzol.

(2) Occupational diseases due to a physical agent: (a) Pneumoconiosis, anthracosis, silicosis, asbestocosis, with action on the lungs. (b) Dermatitis due to continued contact of skin with irritant oils or solutions. (c) Caisson-disease, or Bends, due to sudden atmospheric changes.

(3) Occupational disease due to peculiar infections like anthrax.

For the purposes of this paper we shall confine ourselves mostly to diseases of the first group, since they are practically the only occupational diseases compensable under the laws of New Jersey and their incidence is an everyday occurrence in our modern industrial world.

History. (1) Diseases due to exposure to these poisons have been recorded since the earliest days of history. Greek, Latin and Arabian physicians knew that lead would cause colic when swallowed. An epidemic of colic in the Roman camps during British occupation was attributed to lead-contaminated water and the pipes were condemned by the architect. A clinically perfect picture of lead poisoning, including not only colic but paralysis, is found in the medical annals of the second century. A clear and concise clinical picture of the hatter's shake, of mercury poisoning, was first given by Reitz, of St. Petersburg, Russia, in 1829. The corroding process whereby acid nitrate of mercury is used in the felting of fur can be traced back to the middle of the seventeenth century when it was a secret in the hands of some French workmen. Rapid advances in applied physics and industrial chemistry during the last century have added many new chapters to the history and development of occupational disease.

(2) Occupational disease legislation is of comparatively recent origin. In studying its development we must bear in mind the aims and purposes of these laws; to give prompt medical care and economic relief to workmen disabled because of exposure to a pathologic condition in the process of their employment. The state of New Jersey and all the United States of America have been rather tardy in remedying this condition. The European countries have been ahead of us in their clinical investigation and legislation. It is rather interesting that the first compensation law covering occupational diseases was passed in Switzerland in 1877, but due to the presence of a joker in the statute and the interpretation of the word "exclusively" compensation was not actually paid until 1915.

The principal legislative remedies are as follows:

(1) *Prohibition*

Austria—1928. Forbidding the use of lead in interior decorating.

Switzerland—1908. Forbidding use of lead in interior decorating.

France—1909. Forbids all use of white lead and linseed oil.

New Jersey—1927. Attempts to prohibit the use of benzol as solvent in industry.

New Jersey—Phosphorus eliminated from the match-making industry.

(2) *Regulation*

Ventilation and hygiene.

Preventive appliances, respirators, gloves, change of clothes.

Removal of dust and fumes.

Reporting of occupational disease by attending physician.

(3) *Compensation*

Compulsory payment by employers for medical care and economic losses sustained by workmen as a result of occupational disease.

Foreign countries:

Germany—February, 11, 1929, Act schedule covers 22 occupational diseases.

Austria—Follows Germany's example. Schedule covers infectious diseases in workers of scientific and research institutions.

Belgium—Not quite satisfactory.

France—Not quite satisfactory.

Soviet Russia—February 1925, Act covers practically all occupational diseases.

Italy—Confines compensation to military and state railway employees.

Portugal—Blanket law covering any occupational disease.

Great Britain—Has most liberal laws on compensation of occupational disease.

League of Nations—Platform lists

many diseases of occupational origin.

United States—No uniformity.

Four states definitely exclude compensation for occupational disease.

Thirty-one states definitely exclude compensation for occupational diseases, but allow when they are the result of an accident—as when overcome by fumes.

States which specifically include occupational diseases, in schedule such as New York, New Jersey, Ohio, etc.

States which have no laws, but have established precedents:

North Dakota, injury includes occupational disease; Michigan and Texas exclude occupational disease by interpretation.

Diagnosis. The diagnosis of an occupational disease cannot be based upon any one particular clinical finding, but must depend upon a very careful history, embrace all subjective symptoms, and at least some objective signs and be corroborated by laboratory findings. A history of exposure is of paramount importance in the diagnosis of industrial disease; the occupation of the individual in all its details must be gone into thoroughly. The painter, plumber, typesetter or smelter is exposed to lead poisoning, the felt hatter or mirror maker to mercury, and the match maker to phosphorus. Hemorrhages in an artificial leather worker are suggestive of benzol, while a necrotic jaw in a dial painter is practically conclusive of mesothorium or radium poisoning.

Next in importance is a careful physical examination. In conjunction with a history of exposure, a cadaverous appearance, the Burtonian line, severe abdominal colic, and a peripheral neuritis—all or any combination of these indicate but one disease—plumbism or lead poisoning. Similarly, a history of exposure, gradual asthenia, occasional hemorrhages, increasing pallor and papular eruption, suggest benzol poisoning. A pronounced tremor, gingivitis, dribbling of saliva and

anemia tend to confirm a diagnosis of mercury poisoning. Generally speaking, the subjective complaint suggests the diagnosis, the objective finding clarifies, the history confirms, and the laboratory examination corroborates and finally clinches the diagnosis.

The blood picture is characteristic of most of these diseases. In the case of benzol and mesothorium the picture is one of an anemia of the aplastic type with the blood-forming elements destroyed. Structure of the red cells is not markedly changed while the white blood cells show a leukopenia and a relative lymphocytosis. The color index is 1 or above. On the other hand, the others show a picture of secondary anemia with changes confined largely to the red cells. The color index is low. There may be a leukocytosis present. In the case of acute lead poisoning, characteristic "stippling" of the red blood cells makes an early appearance, persists for a time, and may disappear entirely in the chronic stage. Lead or mercury found in the urine confirms the diagnosis. In cerebro-spinal forms of plumbism with encephalopathy lead may be found in the spinal fluid.

Prognosis and Estimate of Disability. One of the most perplexing problems that has confronted the medical practitioner is the question of estimating permanent disability that may result from an occupational disease. Owing to the compensability of these diseases, the attending physician is often asked: What is the prognosis? Will the patient recover and, if so, to what extent? What will be the ultimate effect on the worker's constitution and his working capacity? It is relatively a simpler matter to estimate disability in the case of a fractured limb. Here you examine the joints above and below the injury and, taking into consideration the functions of the particular limb, you compare with the opposite member and determine the relative loss of function. In prognosticating occupational diseases we are confronted with an entirely different situation in that we have no symmetric standard for comparison. If we keep in mind that the true measure of disability is the amount of impaired function, and consider the human body as a physiologic

unit, we are able to evaluate with some degree of accuracy to what extent the pathologic changes have undermined the body function and its capacity for labor. We must further bear in mind that we cannot allow this man to follow his former calling and must change his vocation since to return to his old occupation with a further exposure would constitute a fatal error. Consequently, his future earning capacity will depend entirely on the facility with which the individual could procure any employment, and if procured, his degree of efficiency in such work.

Permanent disability in occupational disease is the residual damage or permanent pathology left after the individual is removed from exposure and medical and physical measures instituted and sufficient time has elapsed to allow the ordinary consequences of industrial poisoning to disappear by medication and elimination. I will enumerate a few of the factors that constitute this residual damage:

- (1) Persistent anemia, primary or secondary, with general weakness and excessive fatigue.
- (2) Cardiovascular changes—with premature arteriosclerosis and accompanying local disturbances.
- (3) Nerve involvement, peripheral neuritis and muscle group paralysis.
- (4) Cerebrospinal intention tremor, poor coördination, encephalopathy and insanity.
- (5) Effect on vital organs—lungs, kidneys and spleen.
- (6) Loss of resistance to intercurrent disease.
- (7) Effect on longevity—shortened span of life.

Responsibility for translation of the re-resulting morbid anatomy and clinical pathology into the mathematic percentage of disability falls upon the shoulders of the medical practitioner.

I wish to call your attention to some of the contradictions and deficiencies in our otherwise extremely efficient compensation law. If a worker is exposed to an irritant or poison just one time and suffers disability it

constitutes an *accident* and he is compensated for it, while if he suffers from the same condition as a result of continued exposure it is a *disease* and he cannot be compensated even if the results are graver or even fatal. Let me illustrate: If a sand blaster suffers from silicosis as the result of a sudden inhalation of sand through some mishap, he gets paid for it; while the same condition, due to the same sand and same manner of inhalation and the same amount of damage to the lungs present, is not compensable because it required a longer time to develop. Similarly the disease caused by the inhalation of acid fumes escaping from a broken pipe; but a damaged lung resulting from working in an acid filled room is not compensable. Deafness from an explosion is compensable, but the same deafness from a series of explosions over a period of time is considered a disease and not compensable. Last winter, I heard Dr. Wallhauser tell of a case of dermatitis venenata that he treated for a whole year. This condition was the result of constant immersion of both hands in an irritant solution in a dye plant. This man lost a year's wages and required medical treatment which he could obtain only through the good graces of the doctor.

There is only one remedy for this apparently unfair state of affairs—*proper legislation*. A blanket law covering all occupational diseases would be the ideal solution, but conditions do not warrant it at present.

OXYURIS VERMICULARIS AS THE CAUSE OF APPENDICITIS

FRANK C. HENRY, M.D.,
Perth Amboy, N. J.

It is not generally remembered by clinicians, when dealing with intestinal disorders, that the gastro-intestinal tract is an involution of the cutaneous covering of the body. The mucosa, being a continuation of the skin, possesses certain characteristic obstacles against bacterial invasion, as does the skin. It is necessary that we do not lose sight of

the fact that traumatism precedes bacterial invasion. For example, invasion of tubercle bacilli in the mucosa of the lung is a result of a traumatic condition resulting from breathing coal dust, marble dust, etc. It is just as necessary to have a traumatized mucosa to obtain bacterial infection as it is necessary to have a traumatized condition of the skin to obtain bacterial invasion there.

This comparison of skin and mucosa is important. I believe that the mucosa of the appendix possesses the same natural protection against bacterial invasion as does the skin. The mosquito overcomes this natural protection of the skin. The oxyurid is an invader, the same as the mosquito, except that it works in the sewer of the body while the mosquito works externally. The initial lesion in appendicitis occurs most commonly in childhood. In this attack oxyurides are always present, and the operating surgeon will find at least one or more of these nematode parasites in every primary attack, whether in a child or an adult, if he will carefully examine the appendix and provided suppuration is not too far advanced. I have searched as long as 30 minutes and then found a dead male worm, with his stomach and intestinal tract full of human blood corpuscles, buried under the mucosa of the appendix.

In an article published in the New York Medical and Philadelphia Medical Journal, of June 3, 1905, the reason given by me why surgeons do not find oxyurides more frequently was that they do not operate during

the primary attack, or at least not until suppuration has taken place, when the worms are destroyed. Since that time I have been carefully examining every appendix, before and after removal. It is important to emphasize the examination before removal, as at that time it may be determined whether oxyurides are still present in the organ.

Of late years they are not looked for in the secondary attack, as these attacks are caused by a stricture of the lumen of the appendix, this stricture being a sequel of a primary attack. The Editor of one of our leading medical journals facetiously referred to me for suggesting that appendicitis was conveyed by kissing. While I do not wish to interfere with the Editor's diversion, research men tell me that kissing or other direct contact is the only means of becoming infested with oxyurides.

During a recent trip to Georgetown, British Guiana, a hospital of 300 beds was visited. The Attending Surgeon informed me that an appendectomy had not been performed for 5 years. Confirmatory observations have been made by Dr. McCarrison, a British army surgeon, in tropical India. He states that, over a period of 9 years, in which he performed 3600 major operations, he did not see 1 case of ulcer, appendicitis, or mucous colitis. As is generally known, there has been an intensive campaign in the tropics, for generations, against intestinal worms. Owing to this warfare, oxyurides have been eliminated, and with their elimination has come obliteration of appendicitis.

SPRING

BY LOWE W. WREN

The catbird prowls the lilacs once again,
His low, weird notes a puzzle to the ear,
Unlike Cock Robin's voice—as joy to fear.
I wonder that they both come back each year!

And here's that thief, the blue jay, bold as when
He left last fall. Loud are his screams of hate,
And Jenny Wren builds on, thrilled by her mate.
I wonder, Spring, if you hold hands with Fate!

Preliminary Program

MEDICAL SOCIETY OF NEW JERSEY

The 164th Annual Meeting, Haddon Hall, Atlantic City
June 11, 12, 13 and 14, 1930

ANNOUNCEMENTS

Credentials and Certificates

The Committee on Credentials will meet at Haddon Hall, on Tuesday afternoon, June 10, and on Wednesday morning, June 11. Its office will be open constantly during the meeting.

The Constitution requires that all Fellows, Officers, Delegates, and Reporters shall register with this committee.

Delegates must present to this committee a certificate of election signed by the President and Secretary of their respective component societies. Without such certificate they cannot sit as members of the House of Delegates.

Each member of the Nominating Committee should present his certificate to the Recording Secretary before the opening of the afternoon session so that the names of the Nominating Committee may be announced as indicated on the program. The Nominating Committee will meet on Thursday, June 12, at 5.30 p. m., in the committee room.

Papers and Reports

All papers read before the society or appearing by title on the program, whether read or not, thereby become the property of the society. The author of each paper is required to give the Recording Secretary a legible copy of the same before reading. The expense of alterations in a paper after it is in type, and the cost of illustrations are borne by the author. All manuscripts should be *typewritten, double-spaced*, and on one side of the paper only.

Excepting orations, addresses of special guests, and the Address of the President, the time to be occupied in the actual reading of a paper is *limited absolutely to 20 minutes*. Those opening the discussion are allowed 10 minutes each, others 5 minutes each.

Members desiring to present voluntary papers or reports of cases should first have their papers accepted by the Committee on Scientific Work and then apply to the Committee on Program for a position.

Papers and reports not presented when called for by the President cannot be presented at a later time unless the regular order of business is completed.

All members of component societies who are in good standing are entitled to sit as associate members and have the privilege of discussing papers in the general session, but have no vote nor the right to take part in the discussions of the House of Delegates.

On arising to discuss a paper, the speaker will please walk forward to platform and announce his name and address clearly for the benefit of the society. No member may speak a second time in any discussion.

All sessions will be opened promptly at the hour set, in order that the program may be carried out as planned.

The Board of Trustees will meet at Haddon Hall, Tuesday, June 10, at 8 p. m.

Committees or Boards desiring meeting rooms will please notify the Committee on Arrangements, M. W. Reddan, Chairman, or W. D. Olmstead, Secretary.

The rates at Haddon Hall, on the American plan, are:

Rooms with running water (in Chalfonte only)

1 person, \$6 to \$8 per day

2 persons, \$12 to \$14 per day

Rooms with bath—

1 person, \$10 to \$12 per day

2 persons, \$14 to \$20 per day

Exhibits

Exhibits of instruments, books, pharmaceutical preparations, x-ray apparatus, etc., will be shown in the "Exhibit Hall" of the hotel and members are urged to avail themselves of this opportunity to examine the very latest improvements in these various departments.

The degree of interest shown by the visitors in these exhibits mathematically increases or decreases the revenue to the society. It's up to you to help.

HOUSE OF DELEGATES

Wednesday, June 11, 1930, 10.30 A. M.

Call to Order.

Report of Committee on Credentials, William J. Carrington, Chairman.

Reading of Minutes of 1929 Meeting.

Report of Committee on Arrangements and Program, M. W. Reddan, Chairman.

Report of Committee on Scientific Work, Ralph K. Hollinshed, Chairman.

Report of Committee on Publication, Charles D. Bennett, Chairman.

Report of Committee on Constitution and By-Laws, Frederick Quigley, Chairman.

Report of Corresponding Secretary.

Report of Recording Secretary.

Report of Executive Secretary.

Report of Field Secretary.

Report of Welfare Committee.

Report of Board of Trustees.

Report of Judicial Council.

Report of the Treasurer.

Report of Committee on Finance and Budget.

Report of Committee on Honorary Membership.

Report of Board of Medical Examiners.

Report of Committee on Post-Graduate Instruction.

Report of Committee on Public Hygiene and Sanitation.

Report of Committee on Standardization of Hospitals.

Report of Committee on Indemnity Insurance.

Report of Committee on Group Health and Accident Insurance.

Report of Delegates to the American Medical Association and to State Societies.

Afternoon Session

Wednesday, June 11, at 2.30 P. M.

(1) Unfinished Business.

(2) New Business.

(3) At 4 p. m., Address: "The Cost of Medical Care"

By Dr. Morris Fishbein,
Editor of the Journal American Medical Association

SPECIAL MEETING OF SCHOOL PHYSICIANS**Wednesday, June 11, at 2.30 P. M.**

- (1) Place of the Physician in School Health Program

Allen G. Ireland,
Director of Physical and
Health Education, Department
of Public Instruction

- (2) The Physician and His Contribution to Education, from the Viewpoint of the School Administrator

Frank G. Pickell,
City Superintendent of
Schools, Montclair.

- (3) Development in School Health Program as Seen by the School Nurse

Evelyn T. Walter,
Director Public Health Department
Monmouth County Organization for Social Service

- (4) School Health Work from Physician's Point of View

Stanley M. Nichols, Asbury Park

- (5) Contribution of Physical Education to School Health Program

Frederick W. Maroney,
Director Department of
Health Education Atlantic City Public Schools

GENERAL SESSIONS**Scientific Program****Thursday, June 12, at 10 A. M.**

- (1) Nephritis and Nephrosis, with Special Reference to Preventive Treatment

David Riesman, Philadelphia

- (2) Diagnosis and Management of Goiter

F. H. Lahey, Boston

- (3) Indications for Digitalis Therapy in Cardiovascular Disease, and Methods of Administration

William D. Stroud, Philadelphia

Thursday, June 12, at 2.30 P. M.

- (1) Second Thoughts on René Descartes

Harry M. Hall, Wheeling,
President West Virginia
Medical Society

- (2) Quo Vadis—or Trends in the Work of the Medical Profession

L. B. McBrayer, Southern Pines
Secretary North Carolina
Medical Society

- (3) General Discussion

Friday, June 13, at 10 A. M.

- (1) Duodenal Stasis: Types, Causes, Symptoms, Radiologic Diagnosis, and Treatment

C. F. Barker, Newark

- (2) What Is Wrong with the Fracture Situation

J. K. Adams, East Orange

- (3) Relation Between Traumatic Surgery and Industry

J. W. Martin, Baltimore

Special Order—12 Noon

Presidential Address

Andrew F. McBride, Paterson

Friday, June 13, at 2 P. M.

Election of Officers (No other business)

Scientific Program at 2.30 P. M.

- (1) Development of Public Welfare Work

William J. Ellis,
Commissioner Department of
Institutions and Agencies

- (2) Influence of Public Health Activities on Medical Practice

Julius Levy,
Director Childrens Bureau
State Department of Health

- (3) The State Department of Labor in Relation to the Public and the Medical Profession

Henry H. Kessler,
Rehabilitation Bureau,
Department of Labor

- (4) Health Department Growth in New Jersey

D. C. Bowen,
Director State Department
Public Health

- (5) The Doctor and the Law

Robert Peacock
Assistant Attorney-
General of New Jersey

SECTION OF OPHTHALMOLOGY, OTOTOLOGY AND RHINOLARYNGOLOGY

Chairman: Linn Emerson, Orange

Thursday, June 12, at 10 A. M.

Some Problems in the Care of Industrial Eye Injuries

Elbert S. Sherman, Newark
Discussion: Charles H. Schlichter, Elizabeth

J. T. Houghton, of Traveller's Insurance Company

Andrew F. McBride, Paterson

Thursday, June 12, at 2.30 P. M.

- (1) Etiology of Glaucoma, with Reference to Colloid Chemistry; Preliminary Report

H. L. Harley, Atlantic City

- (2) Diagnosis of Glaucoma

W. D. Olmstead, Atlantic City

- (3) Nonsurgical Treatment of Glaucoma

J. H. Chattin, Newark

- (4) Indications for Different Operations in Glaucoma

Edgar S. Thomson, New York

Friday, June 13, at 10 A. M.

- (1) Some Oddities in Mastoid Disease

Walter L. Pannell, East Orange

Discussion opened by Henry C. Barkhorn, Newark

- (2) Advantages of Local Anesthesia in Tonsillectomy; Novocain Technic Based on Anatomic Studies

Robert H. Fowler, New York

Discussion opened by Theodore W. Corwin, Newark.

- (3) Advantages of General Anesthesia in Tonsillectomy

William Campbell, East Orange

Friday, June 13, at 2.30 P. M.

- (1) Hereditary (Familial) Epistaxis; with or without Hemorrhagic Telangiectasia

Hyman I. Goldstein, Camden

Discussion: Henry C. Barkhorn, Newark; Sigmond S. Greenbaum, Philadelphia; William Egbert Robertson, Philadelphia; Mathew S. Ersner, Philadelphia.

- (2) Voice Production

Robert F. Ridpath, Philadelphia

SECTION ON PEDIATRICS**Scientific Program****Thursday, June 12, at 10 A. M.**

- (1) *Bacillus Abortus* Infection
C. A. Pons, W. W. Gosling and H. Barker,
Long Branch

Discussion: Stanley Nichols, Long Branch

- (2) Septic Abortion, Undulant Fever and Raw Milk

Elmer G. Wherry, Newark

Discussion: Chester T. Brown, Arlington

- (3) The Serology of Congenital Syphilis
Robert A. Kilduffe, Atlantic City

Discussion: Joseph H. Marcus, Atlantic City

- (4) Nutritional Edema Associated with Severe Anemia

Joseph H. Marcus, Atlantic City

Discussion: Charles L. Rosenberg, Newark

Thursday, June 12, at 2 P. M.

- (1) Malnutrition in Children
Charles Rosenberg, Newark

Discussion: Arthur Heyman, Newark

- (2) Essentials of Successful Infant Feeding
Percival Nicholson, Philadelphia

- (3) Diet in the Eczema of Infancy
F. I. Krauss, Chatham

Discussion: Arthur Stern, Elizabeth

- (4) Eczema in Infancy from the Dermatologist's Standpoint

Francis J. McCauley, Newark

Discussion: H. J. F. Wallhauser, Newark

Friday, June 13, at 10 A. M.

- (1) Treatment of Whooping Cough with Ether Injections

A. S. Finkelstein, Newark

Discussion: Arthur Stern, Elizabeth; Julius Levy, Newark

- (2) Functional and Nonpathologic Heart Murmurs in Children

Irving Okin, Passaic

Discussion: Stanley Nichols, Long Branch

- (3) Report of Committee on Mental Hygiene,
Elmer Chase Jackson, East Orange

- (4) The Integration of the Child

Ira S. Wile, New York City

Friday, June 13, at 2 P. M.

- (1) Rheumatic Fever in Children

Stanley Nichols, Asbury Park

Discussion: Irving Okin, Passaic

- (2) Gastro-Intestinal Function in Relation to Gastro-Intestinal Mechanics

Charles Gilmore Kerley,

New York City

- (3) The Healing in Human Rickets During Vio-sterol Therapy

J. P. Caffey, New York City

Discussion: Stafford McLean, New York City

WOMAN'S AUXILIARY**Executive Board Meeting and Dinner****Wednesday, June 11, at 5.30 P. M.****General Sessions****Thursday, June 12, at 9 A. M.**

- (1) Call to Order by President, Mrs. James Hunter, Jr.
- (2) Reading of Minutes of last Meeting
- (3) Appointment of Nominating Committee

- (4) Work of the National Woman's Auxiliary. (Speakers to be announced later)
- (5) Address by President of State Medical Society
- (6) Reports of Officers, Committees, and County Presidents; Speeches limited to 3 minutes each
- (7) New and Unfinished Business

Thursday, June 12, at 9 P. M.

Social Gathering in Vernon Room, Haddon Hall

Address: "Fads and Quackery in Medicine"

Dr. Morris Fishbein,

Editor of the Journal of the
American Medical Association**Friday, June 13, at 9 A. M.**

- (1) Report of Nominating Committee and Election of Officers
- (2) Address by Field Secretary of the State Society, Mrs. E. C. Taneyhill
- (3) Address by Dr. Arthur J. Cramp, Director of the Bureau of Investigation, American Medical Association. Topic: "Mrs. Gullible's Travels in Cosmetic Land".
- (4) Address by Editor of Journal of Medical Society of New Jersey, Dr. Henry O. Reik.
- (5) Unfinished Business
- (6) Installation of New Officers

Friday Afternoon, June 13, at 2.30 P. M.**Card Party at Haddon Hall**

A Bridge Party, arranged for all ladies attending the Convention, is being tendered by the Woman's Auxiliary to the Atlantic County Medical Society and will be under the auspices of the Entertainment Committee of that organization, assisted by the Entertainment Committee of the State Society Auxiliary.

Friday Evening, June 13, at 8 P. M.**Rutland Room, Haddon Hall**

Dinner Dance under the auspices of the Woman's Auxiliary. Dinner tickets will be \$3.50 but those who are staying at Haddon Hall or Chalfonte will be allowed a rebate of \$2.50. This ticket charge is for the dinner alone; all other expenses for favors and entertainment are being cared for by the Committee of Arrangements of the State Society.

GENERAL ENTERTAINMENT**Thursday Evening, June 12, at 9 P. M.****Vernon Room, Haddon Hall**

Address: "Fads and Quackery in Medicine"

Dr. Morris Fishbein,

Editor of the Journal of the
American Medical Association**Friday Evening, June 13, at 8 P. M.****Rutland Room, Haddon Hall**

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JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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PUBLICATION COMMITTEE

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:
All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

AN ENTICING PROGRAM

For many reasons, the Annual Meeting to be held June 11 to 14 at Haddon Hall, Atlantic City, should be of interest to every member of this society. Not only is it the annually recurring event to which so many of us look forward expectantly and pleasurably—the 164th convention of the oldest state medical society in the United States—but it is the most important gathering of the year for physicians practicing in this region. Each succeeding year this organization takes on a new degree of vital influence in our lives. It is here that plans are proposed, policies discussed, decisions made, that determine the relation of the physician to the community and that to a large extent shape his destiny. The science of medicine is considered and recent discoveries and advancements are reported or reviewed. Yes, but perhaps of even greater importance is the fact that the art and the business of practice is given a deal of consideration. Medical sociology has a more vital interest for physicians today than has medical science; and it is each member's duty, to his profession and in his own self interest, to participate in the consideration, the development and the guidance of changing medicosocial conditions.

Look over the program presented in this issue of the Journal and note how it affects you. More than 25 purely scientific topics scheduled; 1 separate and distinct afternoon session devoted to problems of the School

Physician; 1 afternoon session at which the Chiefs of State Departments will describe the extent to which the state is now involved in the practice of medicine; 1 session at which distinguished visitors from other states will direct attention to the larger, national trends in medical thought and work, and, in addition, 2 addresses by that distinguished orator and brilliant writer, Dr. Morris Fishbein, Editor of the Journal of the American Medical Association. Something (we think, much) in all of this of value to each and every one of you.

Then, there will be profitable side-shows. In a room near the Exhibit Hall, a continuous showing of scientific moving pictures will be presented. In another room we hope to exhibit some of the work of a few members who, as a diversion from professional labors, engage in the "fine arts"—painting, etching, modelling, sculpture.

Nor has your social entertainment been neglected. A "Dinner Dance" on Friday evening, under management of the Woman's Auxiliary, promises to be a gala affair; it should be, with good food, splendid music, beautiful women, and dreamy dances.

The Woman's Auxiliary meeting at the same time and place makes it possible, desirable or imperative to bring your wife, mother, daughter or sister along (or let them bring you) so that the entire family may take part in and reap benefit from this convention.

Come! You will meet us there, yes?

RECURRING QUESTIONS ABOUT TONSILS

It is our object at the moment to direct your attention to some *troublesome tonsil questions* rather than to the question of *troublesome tonsils*, of which so much more has been written; and we are moved to do this through having recently heard and read considerable unfair and unreasonable criticism of the operation known as tonsillectomy. That there is often justification for criticizing the operation *as performed* by some operators, and more frequently occasion for condemning the growing custom on the part of insufficiently trained physicians attempting to perform this surgical procedure, we admit. But, let us be fair about the problem, and not condemn the operation when the fault properly rests with the operator, and not traduce all tonsillectomists because a few have done poor, or even bad, surgical work. This aspect of the tonsil question was discussed in our "Lighthouse Observations" last month.

Another troublesome aspect of the tonsil question is referred to in Dr. Mial's article published in the April issue of the Journal, and we take advantage of the opportunity now to emphasize his protest against visiting specialists operating upon collected groups of patients and then leaving such patients to "come through" as best they may under ordinary hospital or home care. It matters not how distinguished, how skilful, how successful the special surgeon may be, in reputation, he has no moral right to practice surgery in that manner. The more learned and the more experienced any surgeon becomes, the more certain is he to require that any surgeon who is to operate upon him shall promise to remain with him and in personal control of the after-treatment until all reasonably possible danger has passed; and that is a sane conclusion to have reached. To perform a tonsillectomy and then leave the patient under the care of imperfectly trained observers is a dangerous procedure; and every laryngologist knows that fact has been too thoroughly proved.

Tonsillectomies clumsily performed by unskilled operators account for much of the

complaining one hears; the complications arising from neglect to provide, or from improperly applied, after-treatment, account for another large number of serious charges against the profession. Tonsillectomy is a *major* (not a *minor*) operation, and it should be accorded all the relative pre-operative and post-operative care that is customarily given to other major surgical procedures.

A third troublesome aspect forced itself upon us in a recent newspaper article that appeared in one of New Jersey's prominent dailies under the signature of a member of the profession; not, we are pleased to say, a member from New Jersey. In a lengthy "syndicated health article" this man indulged in a tirade against all tonsil operations—conveying the impression that there is rarely, if ever, any necessity for tonsil removal—based upon his having read that some pathologist had reported that less than 2% of removed tonsils he had examined were found to be actually diseased. There is no need to question the validity of the pathologist's report; the error lies in the interpretation this man has given it. No sensible physician has ever claimed that all or even the majority of troublesome, disease-breeding tonsils are themselves diseased. It is possible for a sewer pipe to serve as conduit for a lot of filthy water, without itself being corroded. Just so, the tonsil that is the focus for systemic infection may be only the mechanism through which poison is received and distributed and may itself remain unaffected. We will wager that the pathologist did not say his remaining 98% of tonsils were innocent of having harbored pyogenic microorganisms or of having served as factory sites for the manufacture and dissemination of toxins.

Examine the healthy-looking tonsils of apparently perfectly healthy persons and note from how large a percentage you will secure cultures of staphylococci, streptococci, or pneumococci; the pneumococcus alone will be found in the throat of 1 out of every 5 healthy individuals tested. The streptococcus will show up in a far larger percentage of cultures from the visible surface or the crypts

of tonsils that are under suspicion of being manufacturing plants for dangerous, disease-breeding toxins. Presence of an encysted abscess is not necessary to prove the case against a tonsil. In fact, the most dangerous tonsils—those that most need to be removed—are the apparently innocent, small, submerged tonsils whose crypts, often filled with cheesy material, are harboring germs that produce toxins to be taken into the lymph and blood channels for distribution to other parts of the body.

There are physicians of standing who are not yet convinced regarding focal infection, despite the mass of accumulated evidence; with them it is useless to argue, but we do protest against publication, by speech or writing, of false or misleading deductions from scientific reports.

That the medical profession is not without some degree of blame for the current criticisms of tonsil operations, we have admitted. An "Act" that has been before 2 successive sessions of our General Assembly has received much of its support from criticism of this one operation. What are we going to do about it? Continue to let anybody holding a medical practice license operate upon tonsils, or take some steps to assure the public of the fitness of those who offer their services as special surgeons? Are we going to recognize the patent fact that tonsillectomy is a *major* operation and require that it be dealt with accordingly, or continue to "look in the other direction" while would-be surgeons discredit the profession?

These are troublesome questions but they must be answered some day.

MEDICAL COURSES A SUCCESS

It is very pleasing to report that the special postgraduate courses in medicine and surgery being offered by the Medical Society of New Jersey through Rutgers University have been received by our members even more cordially than had been anticipated. The special committee having this matter in charge and the representatives put into the field by Rutgers

have worked assiduously to launch the project satisfactorily, and their labors have been rewarded by a hearty response. The committee will make a detailed report to the House of Delegates at the Annual Convention, with recommendations as to continuance of such study courses in the future, but we are permitted now to announce that the success of this year's effort is shown in the fact that 12 full courses with an enrollment of 371 physicians and surgeons and 23 hospital interns (a total of 394), are now being conducted. The counties subscribing to the medical courses are: Atlantic, Cumberland, Essex, Hudson, Mercer, Middlesex, Monmouth, Passaic and Somerset. Those enrolling full courses for surgery are: Hudson, Mercer and Passaic. It will be seen that 3 counties subscribed to both the medical and the surgical courses, and it should be explained that in some of the smaller counties, where total membership was not sufficient to justify an attempt at organizing a course, some members joined the course given in a neighboring county; for instance, Cape May with Atlantic County. The *honors* are carried off by Hudson County where the medical course is being taken by 60 members and 2 interns.

From those who are attending the lectures we have heard nothing but praise of the lectures, the material presented and the manner of presentation.

Congratulations to the special committee and to Rutgers upon the success that is crowning their efforts.

CORRECTION

In the March issue of the Journal, page 271, first column, next to last line, omission of the small but important word *not* changed entirely the sense of what Mr. Osborne said in his report. The phrase referred to should read: "if he (the physician) can be made to see that he is not urging additional business for himself but is actually," etc. The Editor apologizes for the error and requests that each member write the correction in his copy of the Journal.

Collateral Reading

AUTOCARE vs. MEDICAL CARE

EDWARD A. FILENE,

President William Filene's Sons Company
Boston, Mass.

(For several months past the magazines have been full, literally, of articles bearing upon the "high cost of medical care"; some articles being humorous, some severely critical, some (many) disclosing the fact that their authors knew very little about the subject under discussion, and only a few offering anything in the nature of a practical solution of the problems we all recognize as existent. Some of the articles contributed to this general public discussion we should have liked to review for you but the task was too large for the amount of available space. For instance, the January issue of Survey-Graphic was given over in its entirety to articles, 24 in number, on aspects of the "Cost of Health". If you did not chance to read that magazine, look it up now—it is not too late, for it can be found in some nearby library—and get a "bird's-eye view" of a medico-social problem closely related to your daily life.

As stated, we could not abstract for you even the papers in that single issue of one magazine, but, while reading one of those contributions, by Mr. Filene, we remembered that he had last summer courteously responded to a request that we be permitted to publish that paper, which was addressed to the medical profession; and we bespeak its thoughtful reading.—*Editor.*)

I have chosen Autocare vs. Medical Care as the subject of my address this afternoon. You probably never head the word "autocare". I should not be surprised, for I invented it myself for this special occasion. By autocare I mean the kind of care and attention which owners of automobiles usually lavish on their cars, and I want to contrast that sort of attention with the lack of care most people give to their own bodily machinery.

Seldom does a man go on a long drive without reasonable assurance that his car is in good condition. But most of us use the far more delicate machinery of our bodies and minds without regard to their condition, until they break down so badly that further use is difficult or impossible without major repairs—just as if a car owner should start out on a long drive with a flat tire or without oil in the casing.

To the mind of an outsider like myself, trained in the hard school of business experience, the problem of medical care is far from a satisfactory solution—satisfactory either to the doctor or to the patient. And, to my mind, the application of some of the principles of autocare to the field of medical care would go far toward such a solution.

I am all too conscious of the presumption

of a layman, like myself, in addressing a medical audience; but, after all, it takes 2 to do business—in medicine as well as in selling socks. As I am as likely as the next man to do business with a doctor tomorrow, I claim a stake in how the business should be conducted. Naturally, being a business man, I see no insult to the medical profession in admitting that it has its business side. Doctors, like the rest of us, have to make a living—even if they do dispense more charity and a great deal more science in the process.

I am not going to be foolish enough to rush into the field of medical science where angels might well fear to tread. But, as a business man of 40 years' experience, I have had to deal with many problems of business and social organization. I feel, therefore, that there is less presumption in my speaking of medical organization than of medical science—of the social and business machinery which has been created to bring medical science to the service of the people who need it.

Medical science is kept constantly up-to-date, but the organization by which it is applied is way behind the times. That is the conclusion to which at least this particular party of the second part in the business of medicine has arrived. I am convinced that medical science travels by airplane in an age of aviation, while medical organization lingers along in a stage coach.

MEDICAL COSTS CAUSE UNREST

As one of the great medical-service buying public, I submit that we customers have cause for dissatisfaction. If we happen to be rich we must pay, not only for our own treatment but for that of our poor relations—and of the poor with whom we claim no relationship at all. If we are poor we must go to a clinic and become objects of charity. If we are neither rich nor poor, one serious illness in the family may put us so seriously in debt as greatly to hamper or destroy our progress and happiness.

I do not think I exaggerate when I say that the high cost of sickness, at least among the middle classes, is as potent a cause of social unrest as poverty among the poor—for in the long run they produce the same result. I know personally of case after case of people—some of them members of our store staff—whose lives have been twisted and warped by the financial burdens of illness. One sometimes doubts whether, in some instances, the cure did not cause as much or more suffering—of a different sort, no doubt, but suffering just the same—as did the disease itself.

THE DOCTOR SUFFERS TOO

But the patient is not the only one who suffers from the present system, or lack of it. Doctors, hospital and medical scientists generally have their own economic difficulties—just as a department store or any other business would have which operated on the same basis. Except for a few so-called “successful practitioners”, who serve largely a wealthy clientele, the average doctor is rewarded with a ridiculously low return for the great service he renders to the community. His collection problems would stagger the accounting department of a big department store; and most hospitals must be dependent largely upon charitable gifts if they are to exist at all without becoming a part of the government machine.

Something must be done about this situation by the medical profession or the public will take it in hand, as they have done, none too successfully, in some of the leading European nations. And let me say with all the emphasis I can command that I prefer voluntary action to state enforcement—in this and every other field. Self-help by those directly concerned with any economic or social problem is always better for them, and for the public in general, than compulsion exercised by government officials—it is even better for the government.

DOCTORS MUST BE WELL PAID

Let me say also, with equal emphasis, that any solution of this problem of medical care must be predicated on incomes for doctors and medical assistants which are wholly adequate to their needs and rights as members of one of the world's most useful and respected professions. No solution will be satisfactory that does not satisfy the legitimate economic claims of doctors as well as patients.

I want also to make myself clear on another very important point. I do not, nor do I see how anyone else can, blame anyone for the difficulties we are in. The situation is not caused by the selfishness or the malice of any individual or group. Like all of our major social problems, it just happened; and, like them, it will go on happening until we exercise some collective control over it—until medical men apply as much science to medical organization as they have applied to their art. With these all-too personal comments and confessions duly recorded, let me come more closely to grips with the problem in hand.

A SIMPLE BUSINESS ISSUE

In its simplest terms it resolves itself into the same issue that any business man has to meet. Doctors have something of value to

sell the public—something of immeasurably greater value than almost anything else in the world—*health*. The public wants to buy it—often must buy it. The problem is to devise some method of organization whereby the price of this commodity can be set at a figure which all the people can afford to pay and which, at the same time, will produce a reasonable profit for the support of those who sell it.

It may be heresy, but I believe that if the basic economic issues involved in the practice of medicine were admitted and recognized, rather than avoided or cloaked with high-sounding phrases, we should not detract, but add to its dignity; and, incidentally, go a long way toward the solution of its difficulties.

Not so long ago every business man accepted it as axiomatic that the higher the price he placed upon the goods he had to sell the greater would be his income. Mr. Ford exploded this myth—and, incidentally, the myth of socialism which grew out of it. Mr. Ford based his prices upon what the people could pay—and kept reducing them further and further so that more of them could pay. By making a small profit on a vast number of units he proved that far more money could be earned than by making a large profit on a small number of units. His business operations were built to fit the price, not the price to fit his operations. America has prospered in direct ratio to its acceptance of this revolutionary doctrine. Nor has this prosperity been confined to a few wealthy employers; it has been spread in a beneficent stream throughout all layers of our society.

PERIODIC EXAMINATIONS A BOON

The miracles which Mr. Ford and others have worked in bringing the automobile within the price-range of the masses have been based primarily on the economies of large-scale operations and fairly predictable sale. I believe that the inauguration by the nation's doctors and patients of a system of periodic examinations would produce much the same miracle for medical service. I am convinced that adequate medical care might be brought within the purchasing power of every American family as well as automobiles.

In the first place, periodic health examinations would be good for the patient who pays for them—if the individual who keeps a careful check on his health can be called a patient at all. The same care he gives to his auto will produce even more valuable results when applied to the human machine.

I base this opinion on the application to medicine of the old adage that “an ounce of

prevention is worth a pound of cure". You will agree with me, I know, when I say that nowhere is this adage more apt than in the case of human health. The man or woman who goes to a doctor for a thorough examination every 6 months or a year is far less likely to become incapacitated later, or to be removed altogether from this earthly scene, by some serious disease. No athlete or prize fighter would think of doing his business without a continual medical check-up. But business-men, of twice the age, under far more mental, if not physical, strain, seldom think they need it. Yet an expenditure of a few dollars every few months for such a check-up is more than likely to avoid the necessity of paying hundreds or even thousands of dollars for the cure of some disability that may later get out of hand.

DOCTORS COULD CHARGE LESS

But if a system of periodic medical examination is good for the patient, consider its effect upon the doctor. It creates a situation in which he can not only predict his professional activity with far greater accuracy, but can approximate the mass methods which have brought such amazing gains in business—both to producers and consumers of goods.

To put it in terms of current economics: by doing a larger amount of business at less cost per unit the doctor can charge less per unit and yet make as much, if not more income, for himself. In this case one man's gain is not another man's loss, as the old economics would have it; but one man's gain is the other's gain as well. But there is a double gain for the other man: not only does he pay less in the long run for actual medical care rendered, but he is also less likely to be sick. I wish I could offer the public as good a "buy" as that in our store. Imagine it: lower prices for socks and also less need of socks!

Let us assume that I am a doctor. I have, let us say, 267 patients—or, rather 267 people have called on me for treatment during the past year who, I have every reason to suspect, will come back to see me again if they happen to need treatment. As things are now, I have not the remotest idea of how many of them actually will come to my office next year. If I only knew I could decide definitely whether or not to engage that secretary-nurse I have been considering, and to invest in that new fluoroscope and operating table.

EVERYONE COULD PAY

If each one of these 267 agreed to call at least twice next year for a routine examination, I should know just how to plan my capital investment and to frame my operating budget. Not only would I be able to equip and run the office better—and so serve my patients more efficiently, but I could afford to make my charges lower: low enough, perhaps, so that Mr. Jones could pay his bills (thus saving the wastes of trying to bring dead accounts to life). Then, too, Mrs. Fish would not be so incensed at the price I have to charge her now to make up for the loss in Mr. Jones, and to secure me against the risk of not doing any business with her or Mr. Jones at all.

To get down to bare figures, I need only charge \$6.25 a month—about 20 cents a day to each of my patients in order to give me an assured net income of \$20,000 a year. And that would mean only 10 regular examinations for me to make a week—which would leave a considerable leeway for additional service to those who were actually ill.

A system such as this would, as a matter of fact, materially decrease the amount of sickness I would be called upon to treat—and, be it carefully noted, it would be distinctly to my advantage to keep my patients well. I should get my \$20,000 a year if none of them took sick and I would get no more for the extra work involved in treating those that did.

OTHER WASTES ELIMINATED

Some of the other specific wastes that could be eliminated to reduce my operating costs are:

(1) The outlay of time and effort per patient is much less if he can come to my office than if I have to make a trip to his home—as I usually do when he is even slightly ill.

(2) All diseases are easier to treat when they are in their incipient stages. By catching them early the outlay necessary to produce a cure is far less than it otherwise would be.

(3) If I knew more precisely the amount of business I would do, and if its flow were stabilized, I could plan the use of my time with far less waste.

All these economies could be carried even further if I pooled my own business—at least to a certain extent—with that of a group of other doctors. Without giving up our individual professional independence, we might share a good many overhead expenses which each one of us now has to bear entirely himself. We might share in the upkeep of an office building—heat, janitor and nursing

service and so on. We might use coöperatively a wide range of highly expensive and specialized medical apparatus which no one of us would use continuously alone, and of ten could not afford to buy independently. We could have our own subsidiary services of various kinds—x-rays, photography, laboratory, and so on. If I could cut down on my overhead in this way I could reduce my costs even further without reducing my profits.

COUNTING THE COSTS IS NEEDED

Whether medical costs can be reduced far enough for the profession to be put on a strictly business basis I do not know. On this point we should get invaluable evidence from the Committee on the Cost of Medical Care. No one knows today even how much medical service costs, or in what proportion the burden of meeting it is divided. Much less can anyone make a guess as to just how far the costs can be reduced.

I am not enough of a preacher to believe in miracles. I know this problem of the high cost of sickness cannot be solved overnight. I am not sure it can be completely solved in a life time. But I do see certain very practical and concrete ways in which progress is now being made toward a solution. I see also other ways in which further progress might be made.

WHERE PROGRESS IS BEING MADE

Chief among the actual accomplishments has been the development of industrial medicine. American employers have at last come to recognize: first, the cash value of workers' health; and, second, their own responsibility for preserving it. Dr. Dublin, of the Metropolitan Life Insurance Company, has calculated the capital value of the lives that can be saved annually by modern medicine to be \$6,000,000,000. The modern employer has become as intent upon saving human waste as mechanical waste. Among the results have been intensive safety campaigns which have produced remarkable results.

But most pertinent to the present discussion are the organized medical services which have been built up by progressive and enlightened corporations. Here we have an approximation to the ideal of business-like medicine, of which I have spoken. The Endicott-Johnson Corporation, for example, has instituted a comprehensive medical service for its 30,000 workers and their families which the Committee on the Cost of Medical Care has found to be far lower in cost, considering its quantity and quality, than the medical care received by similar workers not

included in it. The large corporation which organizes a systematic and high-grade medical service for its employees, with provision for periodic examinations as well as treatment, is making a genuine contribution to the reduction of the high cost of medical care.

Organizations such as the Life Extension Institute in New York provide an excellent agency for periodic medical examinations. This particular institute gives only reports on the physical condition of those who use it, and does not give medical advice or treatment. It has one great public advantage. Because of this limitation it can, and does, advertise its services without violating medical tradition. Its advertisements have performed a genuine public service in educating the public to the advantages of a periodic health check-up. And, because of the high degree of its business efficiency, its operating costs are exceedingly low.

WHY NOT MEDICAL GUILDS?

I have another suggestion to make. Why should we not have what might be called "medical guilds"? Suppose a group of 15-20 doctors should get together and pool their resources in the creation of an efficient business organization—owned and operated by them—for dispensing medical service on the basis of a periodic examination for a fixed annual fee. Might not such groups, widely organized throughout the country, go further than any agency has yet gone in the solution of our problem?

Consider what these medical guilds might do. Among the members of a guild, 1 or 2 would be skilled general diagnosticians, the others would be specialists in the various branches of medical science—a nose and throat specialist, a gynecologist, a pediatrician, 1 or 2 dentists, a neurologist, and so on. All of them would have their offices in the same building. They would all share in the operating overhead, and in the expense of those facilities and apparatus which might be used jointly by them. They would employ an expert in scientific business management to carry on their business operations—upkeep and management of the plant and accounting.

They would offer their services, not as individuals, but as an organization. They would sell to the public, not 10 or 15 separate and disconnected special branches of medical care, but a well-rounded, complete and self-contained medical service. The guild's patients would not be put to the exasperating nuisance of going from one end of the city to another, from one doctor, with his own set of questions and records, to another, in search of specialized advice on one or more

angles of their particular disabilities. The guild's general diagnostician would refer each patient to the guild specialist best equipped to give the special treatment indicated—in the same building and using a single set of records.

THE MODERN "FAMILY DOCTOR"

Many people seem to be distressed over the disappearance of the old family doctor among the growing horde of specialists. His going is undoubtedly a loss: a distinct personality is gone from our gallery of national types. But in an age of specialization, this is inevitable, and the gains in technical skill, which the specialists offer, often more than balance the loss.

Such a guild of doctors, however, would create a modern collective substitute for the family doctor. While it can never, of course, convey the sense of an individual personality to its patients, it might at least furnish a single organization which would minister to all their ills. They would feel that in going to it they would get the best kind of treatment no matter what their ailments might be. It would also apply to the practice of medicine those basic principles of scientific management which have worked such wonders in the business world.

I do not offer these ideas of periodic examinations and medical guilds as the only possible solution of the high cost of medical care. There may be some other, or many other forms of organization which will accomplish the same end. After all it is up to the doctors, not to patients such as I am (or may be) to find a way out. But I do know that a way out must be found. We cannot reach the best standards of industrial or national well-being until adequate medical care—perhaps the most essential of all the necessities of life—can be brought within the financial reach of every American without either fear or favor and until the doctors who dispense it are guaranteed an income proportionate to their great service to the world.

Medical Ethics

THAT TROUBLESOME COMMISSION QUESTION

JOHN HAMMOND BRADSHAW, M.D., F.A.C.S.,
Orange, New Jersey

Inasmuch as certain statements in the March article on Ethics has called down on the writer more than comment, even absolute criticism, it seems necessary to amplify

and explain the same. It is far from the writer to wish to stir up trouble or to accuse unjustly any portion of our honored profession of unethical practices. This is, especially applicable to oculists among whom are some of the writer's most esteemed and closest friends. When in the paper called "Some Ethical and Unethical Contacts" it was stated that I was informed that a large percentage of the oculists in the State of New Jersey accept, and some demand, commissions from opticians, this statement was not based on the belief or any personal knowledge of the writer; but, after considerable hesitation, was printed in order that it could (if it were not true) be nailed as a lie by the gentlemen themselves, to whom it applied. Personalities, of course, are out of the question and would be patently and unequivocally unethical on my own part. It can be easily understood that few oculists can be found who will candidly admit in statement or in print that they themselves receive commissions. This is expecting too much of human nature.

The word commission can be used in many different ways. In some ways a commission can be almost ethical. Many years ago the writer attended a poor carpenter with many little children dependent upon him for support. The man was suffering from a tuberculous knee. In spite of every effort (and possibly because of too much), mixed infection set in, the whole joint suppurated; and after weeks of suffering, amputation was performed above the knee. The patient recovered his health and put on 40 lb. weight. In order to best continue his trade or occupation, which was his sole support, he was given a letter to a well-known maker of artificial limbs, who made him a really wonderful and most serviceable artificial leg. He even could climb up long ladders and shingle roofs of houses many feet above the surface of the ground. But now he comes to the writer with the maker's bill for \$500, saying he thinks it a little steep and that he has long ago spent all his savings. He was told that the charge was not unreasonable for such an indispensable and serviceable orthopedic appliance. So, in some manner, he scraped together the \$500 and paid the bill. The week afterward the writer received a check for \$100 as his commission for referring the patient to the good house of manufacture. Did the writer proudly and *ethically* send back that check? No, for it was too good a chance to help that poor carpenter; and when it was given him it was received with actual tears in his eyes. But, and here is the point, *the writer probably stands today on the books of that manufacturer as one who accepts com-*

missions. Strictly speaking, he could be disciplined by the American College of Surgeons, could he not?

It has long been the custom, at least in this section, for physicians to receive prescription blanks *gratis* from pharmacists with the doctor's name at the head and the druggist's name at the bottom. As several thousand of these are always at hand in the office, it has seemed to the writer a needless expense to order individual prescription papers from the stationer. But the matter was brought acutely to the front when a patient recently told the writer that *of course* he thought that, in using these druggist prescription blanks, he (the writer) was getting a "rake-off"!

New Jersey is not the only and chief sinner. It is no wish of the writer to hit his own state. An *occulist* doing a rural practice in a neighboring state says that although his office fee is but \$3, he manages to make out fairly well because this sum is duplicated by his check from the manufacturing optician.

It is the honest belief of the writer that we are steadily progressing in our ethics. We may have some distance yet to travel before we attain a perfect score. *But doctors are thinking about these questions.* It is not sufficient to do right. One must even avoid the appearance of evil.

Economics

INDUSTRIAL MEDICINE

(Excerpts from an article by Carey P. McCord, M.D., published in the American Medical Association Bulletin, 25:11, January 1930.)

Dr. McCord analyzes the various types of medical practice in association with industrial health problems, clearly defines the standards of true industrial medicine, elaborates the qualifications of a medical director in industry, and then offers some valuable suggestions as to the proper attitude of organized medicine toward this new professional problem. We shall reproduce his 2 interesting pictures—the industrialist's view of medicine, and, the working man's view thereof—and the series of suggestions referred to:

THE MANUFACTURER AND INDUSTRIAL MEDICINE

From the opinions of many manufacturers throughout the country, I have created a mosaic indicative of the attitude of the highly intelligent manufacturer toward industrial medicine and toward the medical profession. To put this mosaic of opinion into the mouth of one synthetic manufacturer:

This factory is operated in order to pay dividends to stockholders. No less, we have a profound interest in our employees, on whom we are entirely dependent for our success. This interest, which may appear to be paternalistic, is fundamentally economic and possibly selfish. For their interests and ours, it is desirable that they be on the job during all work periods; that they be protected against accidents that prove costly to them and to us; and that even in their sickness unrelated to work that they be restored to health as promptly as possible. It is to their advantage and ours that they be given jobs within their physical and mental capacity, which in turn means physical and mental examinations. It is further to their advantage and ours that they be given these physical examinations, so that no question may arise in the case of alleged injury as to the preëxistence of the condition, such as a hernia or the loss of eyesight. It is further to our advantage and theirs that compensation matters be systematized and standardized in order that our records may be complete, and that no accident may be overlooked and an injustice done to any employee. It is to the advantage of all that we have a proper knowledge of our work conditions in terms of hazards, such as harmful gases or dust, poor lighting, overheating, overcrowding, etc.

By experience, I have found that neighborhood physicians, however well qualified to handle individual medical cases, are not able to advise us on special problems. They are not in touch with the demands of good lighting and ventilation or the eradication of particular disease hazards. They cannot visualize particular types of work so that an injured workman may be withheld from duty to his own disadvantage, when, as a matter of fact, he might have been returned to some duty without any possibility of disadvantage to his existing injury. At other times these physicians have proved to have returned men to work when, under no circumstance was there any possibility of their performing any of the duties within the particular departments in which they are engaged. I have found that the neighborhood physician often withholds patients from hospitals, when it might be to their advantage to be hospitalized, owing to the fact that such physicians do not have hospital connections and would thus lose control of these patients and the income from them or from us. Among some neighborhood physicians there is a tendency to attribute to work practically all ailments of the body that arise among workmen, particularly if the workman himself drops any suggestion to this effect. Granting that there are many

occupational diseases and opportunities for occupational injuries, and granting that aggravation of preëxisting conditions may be brought about as the result of work, still many conditions are linked up with work in the factory that have no possible remote connection. Later, these conditions are justly rejected by compensation boards, but ill will is built up in the minds of many employees against the company.

The average neighborhood physician is unfamiliar with compensation practices and is frequently unable to advise patients as to their rights and just dues under compensation boards. Claims are not filed within the specified times, and records are not kept permitting the claimants to establish properly their contentions. Unending work was earlier thrown on this factory in the adjustment of such matters.

This factory and its management has moral obligations to its employees. Many of them are not highly developed mentally, and a few of them are actually feeble-minded. They are not often able to discriminate properly between highly qualified and little qualified physicians. The methods of the unqualified ones are more likely to attract their attention. In a measure, some guidance is for our own protection, particularly with reference to those conditions originating in our factory for which we are responsible to compensation boards.

Therefore, to meet these situations we deem it advantageous to all connected with this factory to maintain a full-time medical department, under duly qualified medical supervision. We employ a highly skilled and trained full-time physician, with sufficient assistance to handle properly all health problems within this factory. This doctor, in his good judgment, does not follow patients to their homes, except in cases of injuries for which we are responsible. Other patients are brought to the attention of family physicians, when such exist, otherwise they are given a list of physicians located within 1 mile of their homes. Even in accident work, a desire expressed by any injured workmen to have his own physician is respected. Unusual medical matters are brought to the attention of properly qualified specialists. Some information is given to the specialist as to the ability of the patient to pay, when payment is expected of the worker. We do not accept responsibility for the medical care of the families of our workers.

This is my case, as a manufacturer, for industrial medicine in this plant.

INDUSTRIAL MEDICINE AND THE INDIVIDUAL WORKMAN

From contact with many thousands of industrial workers, a mosaic of favorable opinions has been placed in the mouth of one synthetic workman:

I make about \$30 a week, but there are apt to be a few weeks in the year when I am laid off. I have 3 children and my wife. I am fairly able to meet the small medical bills growing out of medical and dental services rendered in the absence of anything unusual. Almost yearly, however, some exceptional medical situation arises. One year it was examination of one child's eyes, later calling for the purchase of glasses. One year it was the removal of tonsils. In the past 7 years my wife has been operated on upon 2 occasions. It is these unusual medical bills, hospital bills, x-ray bills and laboratory bills that continually keep us in debt and take away from my children almost necessary advantages. Making as much as I do, we are scarcely charity patients; and even though we were willing to attend clinics that give free services, the long waits, the necessity of staying away from work at least half of a day at a time, if I am the disabled one, makes this as expensive as regular services. In addition, it might cause me to lose my job. We are able to pay something under any circumstances, but have never been able to find the place where, for reasonable sums, we may get the kind of care that appears to be called for. We even have difficulty in knowing to whom to go. All physicians' signs look very much alike, but different physicians charge considerably different sums, and few of them are willing to tell you how much they will charge prior to entering on examination. Not knowing to whom to go, we are likely to call on an eye specialist, when we need advice for my wife, who is pregnant; or the reverse may be true.

In this situation I find answers to many of my problems at the medical department of the factory. They take care of my wounds when I get hurt there, and treat my small ailments, for which I would not ordinarily go to any doctor. That department tells me when I am sick enough to call in my family doctor. Any morning when I wake up and am uncertain as to whether or not I am able to work, I might call in my family doctor, and he would come to the house. That, however, costs twice as much as an office call. I cannot very well wait until his office hours, which come at 11 o'clock, but since there is a medical department at the factory, I can re-

port there on arrival at work, and the doctor takes responsibility for my care, deciding what I am, or am not, able to work, sending me home, or to my family doctor, if necessary.

Without expense to myself, I am continuously under medical supervision, and I am assured of care for special emergencies. The doctor supervises all work conditions. He stands between me and the management, and keeps me off jobs for which I am not suited. He procures for me, as promptly as possible, whatever moneys I am entitled to in compensation for lost-time injuries and from the mutual aid society. I still have my family doctor whenever I need him, and the factory doctor works hand in hand with the family doctor.

For these reasons, every man in the factory believes in the medical department.

A SUGGESTED ATTITUDE FOR ORGANIZED MEDICINE TOWARD INDUSTRIAL MEDICINE

From the point of view of 1 industrial physician, who, in this paper, has attempted to put his finger on the strength and weakness of industrial medicine in its many angles, there seems to be some promise of betterment if organized medicine may accept, in its attitude, some or all of the following items, and contemplate the action projected in some of the items:

(1) Organized medicine must accept its subdivision, industrial medicine, as a fixture within the general field of medical endeavor, and anticipate an extension rather than a recession of its application in industry.

(2) Organized medicine must recognize that industrial medicine embraces, in a restricted fashion, the practices of both public health and curative medicine, and in so doing, deals with workers both as individuals and in groups.

(3) Organized medicine should discriminate between the genuine and the spurious in industrial medicine, creating and applying appropriate terminology, standards, objectives, boundary lines and practices.

(4) Organized medicine should demand higher standards of training and experience for industrial physicians, and reserve its recognition for those attaining to those standards.

(5) Organized medicine should demand higher standards for practitioners in general, in order that the alert industrial physician, in his responsibility to obtain the medical care best suited to the worker's interests, may not

have to depart from his concepts and desires in relation to the practitioner.

(6) Organized medicine should recognize that industrial medicine is necessarily related to compensation matters, and that many compensation matters, and especially the medical aspects of compensation, are often conducted in a way that reflect discredit on the entire medical profession, and in particular the industrial physician is engulfed in unwanted situations not of his own creation and beyond his individual control.

(7) Organized medicine should condemn the commercialized surveys conducted in industry under the guise of industrial hygiene, when it appears that any such work operates to the disadvantage of the industrial workers as a group. Many good investigations are commercial, but are profitable to the worker. For example, a large study is now under way in the benzol industry. Sales promotion is undoubtedly the prime objective. Such work in industrial plants as may be done in this study will, undoubtedly, lead to further safeguarding of the workman.

(8) Organized medicine should discourage the widespread practice of estimable physicians of regularly refusing to accept any work, fees for which are derivable from some industrial compensation body. This, at once, tends to lower the level of good industrial medicine and to place its control in less desirable hands. Industrial cases are not charity cases and may not be relegated to that level.

(9) Organized medicine should abandon its present attitude toward industrial medicine, characterized by querulousness, suspicion, fear that industrial medicine is alined with interests unfavorable to medicine in general. Industrial medicine is the legitimate offspring of general medicine and genuine industrial medical needs. This offspring is not fundamentally defective, and if wayward, parental neglect is one blamable factor.

(10) Organized medicine should recognize that many physicians functioning in industry are unalined with any organization, state or national, engaged in industrial medicine betterment. Much thinly veiled condemnation in local academies of medicine has ostracized the majority of physicians working in industry, whether or not they are qualified industrial physicians.

(11) Organized medicine should recognize that both nationally and by states its association sections, in which industrial medicine is embraced, are inadequately functioning so far as the promotion of desirable things for the control and betterment of industrial medicine is concerned. Organized

medicine has great need for leadership for its child, "industrial medicine".

(12) Organized medicine should recognize that if industrial medicine is, or is to be made, a creditable and substantial division of

medicine, a new attitude should be fostered which will lead to the centralization of industrial medical endeavors within organized medicine, where it properly belongs, instead as now obtains in separate or borderline associations.

Esthetics

AN AMERICAN SHRINE TO RODIN

One of the most striking additions to art in America is the beautiful Rodin Museum recently constructed in Philadelphia and thrown open to the public with impressive ceremonies.

it a 'personal as well as an official pleasure to help dedicate the Rodin Museum', as it brought into line a member of his own family:

'My sister was one of Rodin's most zealous pupils and helped to create many of his famous statues. I knew Rodin when he was a youth and almost unknown in France. My sister became somewhat of a noted sculptor under Rodin's tute-



Portal to Courtyard. "The Thinker" in foreground.

The Literary Digest of Jan. 18, 1920, says:

"Few if any such tributes to a single master can be found in the length and breadth of our land. It links up, too, with the theater, for the donor, whose collection of Rodin's work is housed here, was the late Jules E. Mastbaum, the theatrical manager. Paul Claudel, French Ambassador to Washington, was present at the recent dedication, and Madame Claudel conferred upon Mrs. Etta Wedell Mastbaum the Red Ribbon of the Legion of Honor. The Ambassador declared

large, and I regret that she is now ill and unable to continue her art work.

This great piece of work and its contents can not be discovered as a museum. It is a temple of art, and through this occasion another link is welded in the chain of cordial relations existing between the United States and France."

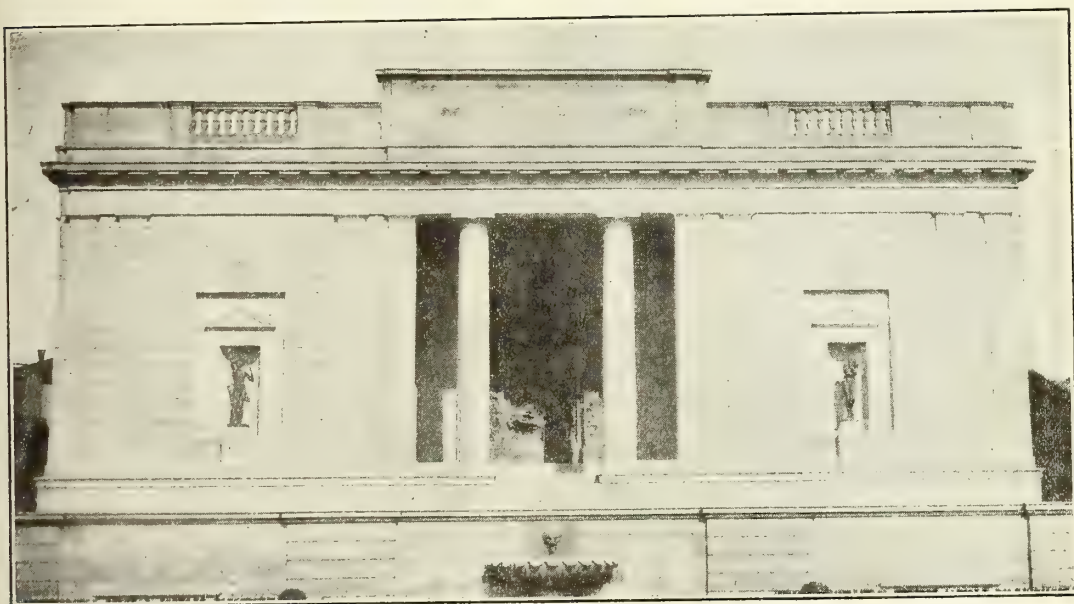
The Editor has enjoyed the privilege of twice visiting this lovely building and inspecting its even lovelier contents and he earnestly recommends to all admirers of sculpture a special visit to the Quaker City, for a

few hours with Rodin. He presents the accompanying snapshot illustrations as evidence of the architectural beauty of the building, along with a verbal description taken from the New York Times on the occasion of its dedication.

"Before it stretch formal French gardens and a pool (bleak enough in winter!), and the gateway is a reconstruction of the eighteenth-century château facade that was re-assembled by Rodin on his Meudon Val-Fleury estate after the original château near Issy had been torn down. Thus to make use

spiritual home was Greece, and to this predilection belong such well-known pieces as the 'Age of Bronze'. This was what he called the 'four-plane' technic, as contrasted with the 'two-plane' of Gothic sculpture. Most of Rodin's work was, as we know, in the direction of Michelangelo and the Gothics, though toward the end of his life he began to waver, expressing doubt as to his wisdom in swinging away from the antique ideal.

At his best Rodin is eloquent indeed, putting into plastic form esthetic theories that are strongly original and sound. Less easily



Front facade to Grecian temple; glimpse of fine bronze doors.

of the facade in Philadelphia was a good idea; but in concrete realization it misses a little being as effective as the architects hoped, since, viewed from any angle, save that directly in front, it establishes a sense of thin, shell-like incompleteness that, due to its size, rather detracts from the beauty of the whole architectural scheme.

The Rodin collection is comprehensive enough to permit of the visitor's forming a general impression of the famous sculptor's art. It embodies his best and also his least convincing essays, in plastic media. Rodin was always more or less torn between Phidias and Michelangelo. To begin with, his

defended must be expressions such as the 'Man Holding an Angel on His Knee' or 'The Triumph of Victor Hugo', in which baroque runs away with him and ends in froth. It would take an enthusiast also to champion many of the downright symbolic excursions. Rodin was always attempting to be a philosopher in stone and bronze, and too frequently the hard medium resisted his efforts. However, that he was a tremendous force, capable of high plastic expression, few will care to deny. And we may be forever grateful to him for helping to liberate modern sculpture from its chains of slavish imitation and dull mediocrity."

Lighthouse Observations

LATEST WORD ON SCARLET FEVER

Dr. Gladys Dick has very recently (Illinois Med. Jour., 57:22, Jan. 1930) presented a summary of our present knowledge relating to prevention and cure of this disease. The following remarks are abstracted from that article.

"Six years ago, we began the publication of a series of experiments which established a specific hemolytic streptococcus as the cause of scarlet fever. In these experiments, it was shown that the scarlet fever streptococcus produces a potent *soluble toxin* which is responsible for the toxemia, nausea and rash, and that recovery from the disease with subsequent immunity depends on the production of an antitoxin. This antitoxin is capable of neutralizing the scarlet fever toxin *in vitro*. The conclusions as to the etiology, specific toxin and antitoxin of scarlet fever have been verified by reports too numerous to detail here, published in this and other countries. They include the work done by Nicolle in the Pasteur Institute at Tunis where all of the crucial experiments were repeated, including even the production of experimental scarlet fever in human beings.

The manufacture of soluble toxins by streptococci was a new conception. It had been thought that true toxins were concerned in comparatively few diseases such as diphtheria, tetanus, botulism and some forms of dysentery; all of which are caused by bacilli. The discovery that soluble toxins may be produced by streptococci opened a new field for medical research in which many investigators are now engaged in attempts to demonstrate and differentiate toxins from various kinds of streptococci.

Scarlet fever toxin and the corresponding antitoxin have furnished the means for controlling the disease through the development of: (1) A method of identifying scarlet fever streptococci. (2) Control of quarantine by means of nose and throat cultures on blood agar plates. (3) A skin test for determining susceptibility to scarlet fever. (4) A method of active immunization of susceptible persons. (5) An antitoxin specific for scarlet fever for use in the treatment and in the prevention of the disease.

The reliability of the skin test in determining susceptibility to scarlet fever is shown by the results in 20,856 persons with spontaneously negative reactions. All of these immune persons have passed through one epidemic of scarlet fever and some have gone through several epidemics without contracting the disease; with the possible exception of one boy who desquamated on the feet and gave a history of having had a sore throat. The most severe test of the skin reaction is found in a group of 2,157 pupil nurses and interns who were allowed to go on contagious disease services when their skin tests were found to be spontaneously negative. In spite of prolonged and intimate exposure to scarlet fever, none of this group contracted the disease.

In a series of skin tests it will be found that the positive reactions shown all gradations, from small areas of faint color to intensely red reactions 3 to 5 cm. in diameter. These differences in the intensity and size of the skin reactions correspond to differences in degree of susceptibility and partly explain the great variation in severity of scarlet fever. The intermediate stages of the reaction also indicate that, in many persons, immunity to scarlet fever is acquired gradually

through repeated infections with scarlet fever streptococci without the development of a typical attack of the disease. It has been learned that one attack of scarlet fever sore throat does not necessarily confer complete immunity; while typical attacks of scarlet fever usually result in complete immunity as indicated by negative skin reactions in convalescent scarlet fever patients and the comparative infrequency of second attacks of the disease.

Active immunization with graduated doses of sterile scarlet fever toxin in 12,775 susceptible persons caused no injury in any instance. In 3 institutions, urine analyses were made before, during and after immunization. There was no evidence of nephritis caused by the immunization. Some persons who had nephritis were immunized without causing an exacerbation of the condition.

The larger immunizing doses of toxin give a higher degree of immunity in a higher percentage of susceptible persons. In much of the work reported small doses have been employed. We have not been able to verify the results of those who claimed negative skin tests in 85% after a maximum dose of 3000 skin test doses of preserved toxin. Neither have we been able to verify the claims as to the protective value of ricinoleated toxin described by Larson. We used Larson's material in 3 doses 1 c.c. each and found that it caused more severe reactions than followed the graduated doses of toxin. The skin test did not become negative in any of the susceptible persons who received the Larson preparation and, on subsequent exposure to scarlet fever, a number of them developed the disease. The wide use of a commercial preparation of the ricinoleated toxin and the unfounded claims made for it by the manufacturer have done much to discredit the new methods for the control of scarlet fever and tend to discredit preventive immunization in general. In spite of our repeated warnings against this preparation, it has been widely distributed and employed by physicians in unsuccessful attempts to control epidemics of scarlet fever.

The doses of sterile toxin for active immunization should be graduated, beginning with 500 skin test doses in the first injection and increasing to 80 or 100,000 skin test doses in the last injection. The injections are made subcutaneously at intervals of 1 week. If the full amount is given in each dose, the 5 doses may be counted on to immunize completely 95% of susceptible persons and to considerably modify the susceptibility of the remainder. Two weeks after the last dose is given, another skin test is made, using 0.1 c.c. of the skin test solution, or 1 skin test dose, on the right arm and 0.2 c.c., or 2 skin test doses, on the left arm. If the reaction on either arm is positive, the fifth dose is repeated.

Unless the immunization is carried to the point of a negative skin test, complete protection against scarlet fever cannot be expected; though the severity of a subsequent attack of scarlet fever would be modified by the partial immunization.

Since persons who are immune to scarlet fever do not require protection, the indiscriminate administration of prophylactic doses of scarlet fever antitoxin to contacts is not justified. If it is not possible to make skin tests and nose and throat cultures on blood agar plates to determine which contacts need antitoxin, it is better to watch all of them closely and give a therapeutic dose of antitoxin on the development of any symptoms suggestive of scarlet fever.

Where it is possible to make skin tests and cul-

ures and establish quarantine separating the infected from the noninfected persons, active immunization with the toxin of the noninfected susceptibles may be begun at once and prophylactic doses of scarlet fever antitoxin may be given to persons who are both susceptible and infected.

By the use of nose and throat cultures on blood agar plates, skin tests for susceptibility, active immunization with the toxin, and use of antitoxin prophylactically in infected susceptibles, it is possible in a group, small enough to test and culture in 1 day, to bring an epidemic of scarlet fever under control in 48 hours.

Scarlet fever antitoxin may be employed therapeutically with advantage in all cases of scarlet fever as soon as the appearance of the rash suggests the diagnosis. Given early in adequate dosage, scarlet fever antitoxin gives brilliant results. The patient sometimes recovers so promptly that the attending physician wonders if he could have been mistaken in the diagnosis of scarlet fever."

COLONIC STASIS AND ITS THERAPY

A very interesting article upon this subject by Dr. James W. Wiltsie, of Binghamton, N. Y. (*Amer. Med.* Nov. 1929, p. 745), is the source of the following abstract.

"A number of years ago I became interested in the study of focal infection, its diagnosis and treatment. Its many manifestations and elusiveness attracted me. I discovered that in spite of the elimination of one or more foci the symptoms did not always disappear. Indeed we have all heard patients complain that they had had their teeth, tonsils and appendix out in a vain effort to get rid of some annoying syndrome. They come to us entirely discouraged, hoping against hope that we might suggest something new. We feel that we must do something, and yet after listening to their story we hardly know what more to suggest. What is wrong with our management of these cases?

The prevailing symptoms of this group were: mental and physical depression, dizziness, headaches, loss of weight, constipation, anemia, arthritic pains, loss of appetite and insomnia. It occurred to me that colon infection might be responsible for these symptoms.

I treated this group of patients for colonic stasis, endeavoring to find the cause of the stasis and correct it whenever possible. Some cases proved to be subthyroid and yielded to thyroid medication. Others were spastic and yielded to sedatives and rest. On the remainder, cathartics, intestinal antiseptics, alkalies, colon irrigations, calisthenics, diet and other forms of management were used. Although some excellent results were obtained, on the whole I was not satisfied. I desired some method by which the colon could be flushed from the cecum down. Most of the literature on the subject stated that it was impossible to pass a colon tube more than 12 to 15 in. into the bowel. However, while browsing through a bookstore in New York I picked up a monograph entitled 'Colonic Therapy in the Treatment of Disease' by Schellberg. Here was a man who claimed he was able to catheterize the cecum with a 52 in. colon tube.

I looked this man up and spent 2 days with him. He showed me every courtesy, permitted me to watch him operate, explained each step and convinced me that he was doing just what he claimed he was doing. It ended by my bringing one of his units home with me. With this apparatus and the pointers I had received I began work on some of my previously referred to

cases. The technic was not hard to learn and before long I began to get results. My list of chronics gradually dwindled as one after another they were relieved of symptoms. Most of them have remained well.

It is 1½ years now since I began the study of colonic therapy. In this time we have given over 2900 colon irrigations to 283 patients. Only a fraction of these have come from my own private practice. By far the majority have come to me as referred work or independently and expressly for these treatments. A complete history and physical examination is accorded every patient and no effort is spared to arrive at an accurate diagnosis. Cases suspected of harboring foci of infection other than in the colon are put through as thorough and complete a diagnostic procedure as it is possible to put them through, and treatment is instituted entirely in conformity to the findings.

I wish to confine my remarks in this article to a discussion of colonic therapy alone, for I feel there is considerable misconception as to its purpose and scope. Unquestionably the colon is the most generally misunderstood and abused organ of the body. Self-evident and unclean we do not give it the attention it merits, and yet in its physiology and pathology it is most intimately associated with every system of our anatomy.

The usual technic of colon irrigations is to introduce a colon tube a few inches into the rectum and by quantities of water, liquify the solid feces of the motor colon so that it may be more readily expelled. However, much of this reliquified material passes over into the absorptive colon where it again undergoes dehydration with further absorption of toxins into the blood stream. This method cannot cleanse the cecum and is not rational. Furthermore if persisted in there is a tendency for nature to develop a defensive constriction at some point in the colon as a protest against this attempt to reverse the gradient. Distension of the bowel below and stasis above, with weak-ended musculature throughout, ultimately results.

Following the technic developed by Schellberg the colon tube is gently inserted into the rectum which is emptied of material by allowing a few ounces of water at body temperature to run in and then out again. The tube is then advanced to the sigmoid which it enters with water running and without sufficient irritation to cause the sigmoid to contract. After a few inches advance the valve is again reversed and the water runs out. The tube is well lubricated and is stiff enough so that it does not double on itself and yet is able to follow the natural curves of the colon. In this manner with never more than a few ounces of water in the colon at a time the tube is made to advance as rapidly as possible to the cecum. It is unusual for the bowel to offer any active resistance to this procedure. The material accumulated in the sigmoid and descending colon is entirely disregarded as the tube is advanced, for it is later to be washed out by the solution which is deposited in the cecum. When the cecum is reached it is partly emptied of material, after which about a quart of medicated solution at a temperature of 50° C. is deposited. The patient is then requested to sit up and expel the solution which, starting from the cecum carries everything that is loose before it. Naturally a single irrigation does not completely empty the bowel. This process is repeated daily for 7 or 8 days and then every other day until cleansing and disinfection are complete. Checked by bacteriologic examination of the cecal material

the proper time for acidophilus implanation is determined. Usually 3 or 4 implants are sufficient to establish an acidophilus flora and the course of treatment is terminated. The patient is requested to return at intervals for observation and an occasional implant until normal function is again thoroughly established.

The Schellberg method of colon irrigations must be looked upon as a system of colon therapy, the benefits of and therapeutic indications for which extend far beyond the limits of the colon itself. Not that it is claimed to be a cure-all. It is not. But it is an adjuvant to other therapeutic measures in the same sense that diet, exercise and physiotherapy are. These treatments do far more than merely empty the bowel. By antiseptics the cecum is disinfected, by the use of a solution at 50° C., congestion is relieved, the circulation improved and a great number of bacteria are destroyed, alkaline and medicated solutions are introduced into the cecum for absorption, diuresis is markedly stimulated and the portal circulation is flushed. Blood pressure is reduced, toxemias are relieved and specially prepared cultures of acidophilus and bulgaricus bacilli are given and a permanent flora established in a few days. Conditions such as myalgias, neuritis, rheumatoid arthritis and other conditions resulting from colonic stasis are relieved and frequently cured."

Presessional Reports

At a meeting of the House of Delegates, June 11, 1927, the following resolution was adopted: "That the report of the Board of Trustees and the reports of committees which are to be acted on in the sessions of the House of Delegates, be printed in the Journal a month before the meeting in order that the delegates may be acquainted with the business that is to come before them."

In compliance therewith, the Editor requested the officers and chairmen of standing committees to submit their reports before April 20, for publication in the May Journal. The following reports include all received up to April 28. It should be understood that each report may be altered, if necessary, before submission in final form to the House of Delegates; this because the presessional reports must be prepared nearly 2 months in advance of the Annual Meeting, and many things may occur during such an interval to necessitate a change in the official report.

Preliminary Report Welfare Committee

The organization meeting was held at the Stacy-Trent Hotel, October 27, 1929. The wise policies of the former Chairman, Dr. McBride, were endorsed and the present Chairman has endeavored to continue these policies. The following definite program was decided upon:

(1) To call as few meetings as possible in order to conserve the time of the members of the committee who, at the call of the Chairman and with no little sacrifice, faithfully journey from all sections of the state to Trenton on Sunday afternoons to attend these meetings.

(2) To consider not only matters of legislation affecting the medical profession and the welfare of the citizens of our state, but many other questions that call for inquiry, enlightenment and study.

(3) To support such legislative matters as might be introduced that would benefit the public generally and preserve the present standards of the Medical Practice Act.

(4) To oppose vigorously and with dignity any legislation that would tend to lower the standards and requirements to practice the healing art in our state.

I am proud to say for this service the members gladly gave their time and talent. We did not favor visitations of groups of doctors to the legislative halls if such could be avoided, but have endeavored to eliminate from our activities any semblance of lobbying. In lieu of this, we felt it would be more effective to have the county representative on the Welfare Committee interview personally, by letter, or by telephone, the members of the Legislature in both branches, in their respective counties. We felt that by personal interviews with explanations of the good or bad in the proposed legislation we would be able to impress the members of the Legislature with the idea that our stand was for the general good of the state and not for the benefit of the medical profession. I think the results have justified this plan.

This year was no exception to those of the past. There was the usual influx of bills introduced by the various cults, all aiming to enlarge their field of practice and to open a way to practice the art of healing the sick without having to comply with the present legal and educational requirements. I am happy to report that the campaign against such bills was successful; not one of them becoming a law.

The Welfare Committee is conscious of the fact that these results could not have met with success without the valuable help of many agencies outside of the committee, of which the Chairman hopes to be more specific in his report to the State Society at its annual session in June.

In closing, I want to say that we are proud of the physicians who have at the expense of their practice and through many sacrifices weathered the unpleasant features of a political campaign, and who now grace the Halls of our Legislature, in both branches, and who have stood shoulder to shoulder with their fellow physicians to preserve a high standard of requirement for those who wish to practice the healing art in the State of New Jersey.

Tentative Report of Field Secretary

Your Field Secretary takes great pleasure in submitting this preliminary report of what has been attained by the Medical Society of New Jersey during the sixth year of its identification with public health education, because it is a record which, to the best of our knowledge, places this state society very far in the lead in active support of the modern trend toward preventive medicine sanctioned by the American Medical Association.

In general, the quadruple publicity program which has been carried on for 4 years has been adhered to: (1) constant appeals and reports to the county medical societies, so that each should be apprised of what the state society was doing in its territory; (2) addresses to lay organizations of all sorts, in the small towns and villages as well as in the cities, wherever an audience could be gathered to listen to the physician's views concerning the safeguarding of health; (3) broadcasting once a week, from November to May, some feature of the preventive medicine program

of the state society; (4) securing the printing of these radio talks on "How to Keep Well", in as many newspapers as possible throughout the state.

Contact with the county societies has been effected chiefly, of course, through the indefatigable Recording Secretary, Dr. Morrison, ably supported by the President, Dr. McBride, and when possible by the Executive Secretary. Broadcasting and newspaper publicity has naturally remained in the competent hands of the Editor of the Journal, and Executive Secretary, Dr. Reik. It is obvious that no approach to an accurate estimate can be made of the returns on the investment of time and labor in these two fields but considerable evidence is available to show that public interest has been widely aroused, with consequent benefit to the profession. Letters have been received from radio fans throughout the state and from many distant points expressing thanks for information given, or requesting further advice on medical subjects. Messages from different parts of the state indicate appreciable interest in periodic health examinations, and individual physicians have reported an increase in their work definitely traceable to this public health program.

In the matter of addresses to lay organizations, however, we have a definite gage of the increasing acceptability of our health education enterprise, and it is to this phase that your Field Secretary has devoted her main effort. For 2 years we had optimistically relied on the county societies and auxiliaries to see eye to eye with us in this undertaking. Through the intermediary offices of these organizations we were enabled to reach, in the year 1927-28, a total of 47 audiences, comprising in all 6700 persons. Our record for the year 1928-29 was 76 talks to an aggregate audience of 6250. Inasmuch as the total number for the first year was enormously swelled by 2 school groups of 1000 pupils each, and as we had no such items the second year, an estimate of the growth of our work must be based on the appreciable increase (60%) in the number of talks given. This was consoling but not satisfactory. Only 3% of our invitations to speak had come through members of the county societies. The balance of our accomplishment stood to the credit of 7 of the auxiliaries. We had traversed the state in all directions, doubling back on our tracks repeatedly, at beck and call of any group that would give us a hearing. Such lack of system was a waste of time, effort and money. It also placed our whole program at the mercy of the fluctuating enthusiasms of the county groups. While casting about for some more stable method of procedure, we recalled that the talks in the schools had been received with marked enthusiasm. This fact, coupled with the expressed belief of educators to the effect that the hope of a new doctrine lies in the rising generation, led us to consult with Dr. Allen G. Ireland, Director of Physical and Health Education in the Public Schools of New Jersey, regarding the advisability of co-operation, with its resultant benefits to both the Department of Public Instruction and the Medical Society.

The acceptance by Commissioner Elliott and Dr. Ireland of our offer, their endorsement of our program, and their schedule assigning me to each of the 21 counties in the state for a definite period of time during the year 1929-30, were measures so promptly put through that we were able at the last annual meeting of this society to report this

affiliation as the definite basis of our work for the ensuing year. Copies of the schedule were also distributed at that meeting.

During the summer months we followed up Dr. Ireland's letter to the county superintendents, notifying them of the time allotted to their separate counties, with a personal communication explaining the objectives of the Medical Society and asking for a definite reply as to whether it would be their pleasure to accept our offer. Sixteen of the 21 superintendents gave us immediate and cordial support. There was no reply from Sussex, Camden or Monmouth. The superintendent of Bergen County felt that his territory was too extensive and his office force too inadequate to justify him in attempting to organize a suitable program. The superintendent of Cape May County said there were reasons why it would be advisable to delay his acceptance for another year.

In accordance, therefore, with the definite schedule which we had in hand at the beginning of this working year, your representative has covered to date 14 counties (up to April 20). She has given a total of 226 talks to an aggregate audience of approximately 48,260 persons. Of the total number of talks, 58 were presented to adult groups and 168 in the schools. Adults in attendance numbered 1982; pupils and teachers, 46,278.

To measure the increase in our work which these figures denote, it will be of interest to compare them with the combined totals for the 2 preceding years during which your present secretary has been engaged in promoting the educational program. From October, 1927, to June, 1929, we had to our credit 123 talks to audiences comprising 12,950 persons. The scope of our work has therefore been enlarged during this third year by 93, in respect to the number of audiences, and by 35,310 in respect to the size of these audiences. The increase, over the preceding year alone is 150, for the number of talks given, and 42,010 for the number of persons reached. These figures are exclusive of the 30 requests that we have been unable to accept this year.

The support of the auxiliaries has shown a decided falling off, due possibly to a misunderstanding of the sort of help they could still render under the new alinement. Although the schedule was placed in the hands of every woman attending the June 1929, meeting, and although each auxiliary was urged to coöperate with its county superintendent of schools in securing engagements which might be outside his administrative territory, only 3 of these organizations—Burlington, Camden and Essex—took the matter to heart and bestirred themselves to make a definite contribution to our project. The circularization by the Camden Auxiliary of the Parent-Teacher Associations in that county, as reported last June, brought in 21 requests for talks before those bodies, 10 of which we were able to accept. In Essex County, Mrs. Don Epler, chairman of the program committee, was tireless in her efforts to get our message across to every group that happened to be holding a meeting during the 10 days of our stay in that region. Her outstanding achievement, however, lay in securing an invitation to broadcast over station WOR, the talk being happily designated by the announcer as a "contribution by station WOR to the health program of the Medical Society of Essex County". We received several congratulatory letters regarding this radio talk, and one request from New York for a copy to be used where the writer of the letter said it was "badly needed". "It was the best thing of its kind I ever heard", she added. Dr. Lulu Hunt

Peters wrote, expressing her belief that in such—what she termed “intelligent”—broadcasting, the medical society had an effective offset to much of the quackery that goes over the air. In only one respect was this event a disappointment to us: the time and title of the talk did not appear in the newspaper radio program. We did not feel, however, that we were in a position to lament too loudly over this slip-up in publicity.

While we are on the subject of auxiliary co-operation, we must not fail to give to Sussex County credit for standing-by 100%. In reply to their letter asking just how they were to proceed, we could only pass on the regrettable information that their county superintendent had remained indifferent to our advances and that we could not include that county in our itinerary this year, thus nipping in the bud their all too rare enthusiasm.

An unexpected, and to our mind wholly advantageous function of a field secretary was revealed to us this year when we were invited to attend, as your representative, or to participate in, national and local conferences of associations devoted to child or public welfare. The most important of these was the National Child Welfare Association Conference, held at Sayville, Long Island, in June, 1929, and we wish thus formally to acknowledge to Dr. Ireland our debt of gratitude for his kind offices in making this privilege available to us. Even more inspiring than the excellent program, to one who day by day forges ahead on an unblazed trail, were the informal discussions among the notable men and women who have so much to offer out of a rich experience in their organized effort to promote physical and mental adjustment. A number of physicians were in attendance at this conference, and “Ph. D.” was so common as to be scarcely impressive. It should be of interest to you to know that upon certain objectives all of these eminent leaders were agreed; namely, placing the responsibility for the welfare of the children directly upon the parents, and teaching the children to expect this safeguarding of their health, preferably under the supervision of the family physician. Furthermore, they were agreed that these ends were to be attained only through education, and more education, of both parents and children. In passing, you may find it significant to note that no other state medical society was represented at this conference, and could you know the cordial welcome accorded your representative whenever the slightest willingness is displayed to coöperate with any of the health agencies, you would realize how deplorable is the prevailing indifference on the part of organized medicine to these other organizations that are so sincerely interested in promoting health through the services of the very profession which all but refuses to be interested; this makes your coöperation—the Medical Society of New Jersey—all the more acceptable and appreciated.

Explaining just what coöperation the medical society is giving to the New Jersey Tuberculosis League was our pleasant task at 2 meetings of the County Health Associations, 1 in Cumberland and 1 in Salem county, in recognition of which service Mr. Easton, the Executive Secretary of the League, wrote a most cordial letter of appreciation. One invitation which we regretfully declined, came from the supervising principal of schools in Princeton, to participate in the program for health week among the colored people in that town.

Our distress becomes really acute, however, when we cannot respond to the cry, “Come over

into Macedonia and help us!” Mrs. Hunsberger, President-Elect of the national auxiliary, wanted a speaker on Toxin-Antitoxin for a mass meeting to be held in Norristown, Pennsylvania. She offered a brass band and other trimmings, but the date for that meeting had long been pledged elsewhere, so what could we do?

The Tristate Conference devoted a part of its session on December 7, to a consideration of the educational program of the Medical Society of New Jersey. Discussion of the paper read by your Field Secretary, giving an account of this enterprise since its inception in 1924, brought out the fact that both New York and Pennsylvania are watching our progress closely and are a bit uneasy over the absence of any similar undertaking in their own societies. Dr. Joseph S. Lawrence stated that during his connection with the Department of Health of New York, he had at one time 12 lecturers on public health topics in the field, at a salary of \$1500 to \$3000 each. He further stated that some of these speakers averaged more than 2 talks a week for the entire year. Anyone who is sceptical regarding the proportionate expense and attainments of this phase of the activities of the New Jersey Medical Society is invited to consider the fact that our average number of talks per week comes to nearly 5—which is $2\frac{1}{2}$ times greater than that of New York's best public health speakers, while our expenditure is only $\frac{1}{3}$ larger than their maximum salary.

As a matter of fact, the record of the health education program of the Medical Society of New Jersey for the year 1929-30, should be regarded as a demonstration rather than as a standard which we can hope to maintain. Its accomplishment has been made possible only by the sacrifice of even the moderate amount of diversion which is indispensable to every normal life. It has meant long hours, long journeys, in all sorts of weather, from Monday morning to Friday night—sometimes from Sunday afternoon to Saturday morning—with 10 to 15 letters waiting to fill up the void that would otherwise be Sunday. Thus the record has been achieved in the hope that it would be an acceptable tribute to those officers and members of the society whose vision and understanding have made it possible for New Jersey to take first place in this new crusade under the banner of preventive medicine.

Should it be the pleasure of the society to continue its affiliation with the Department of Public Instruction it is Dr. Ireland's idea that even more effective and far-reaching results may be obtained by devoting our time during the next year to Teachers' Institutes and Normal Schools. Such a plan would, of course, not preclude acceptance of any calls from auxiliaries or county societies which did not conflict with the main program as outlined in the schedule which will shortly be in your hands.

Respectfully submitted,

Ethel C. Taneyhill,
Field Secretary.

Preliminary Report of The Editor and Executive Secretary

We are pleased to report that the work of this office has progressed very satisfactorily during this fiscal year. In accordance with the custom, we are presenting a detailed report of the various factors in our work, but request the privilege of making some alterations and additions ere this shall be submitted to the House of Delegates at

the Annual Convention; changes which may be rendered necessary by happenings between this date, April 20, and that of the Annual Meeting, June 11.

(1) The Journal. As was predicted in our last annual report, the amount of material offered for publication has increased markedly and we have had to make a slight further increase in size of the Journal. During the first 5 months of 1929, the Journal carried 440 pages of reading matter; during the first 5 months of 1930, it carried 500 pages; not very much of an increase but indicating that it is necessary now to have the Journal average something over 1000 pages per annum, and in our opinion it is not wise to extend it beyond that point because the additional 60 pages usually devoted to the Annual Transactions, 8 pages for the Index, and 44 pages of the Official List of Members, will bring the total close to 1200 pages for binding in 1 volume.

Studying the contents of the monthly Journals since last June, we are impressed by the improved character as well as the increased number of Original Articles, and of the scientific reports received through the county societies or direct from affiliated county and city hospitals. Many of the staff meeting reports have presented clinical material of great value if measured on the basis of use as post-graduate reading; especially has this been true when those reports contained autopsy records in conjunction with the clinical portion of hospital case histories. If you have not been accustomed to reading that section of the Journal, we direct your attention to its importance.

The department entitled Collateral Reading has seemingly met with approval, if we may judge by the fact that members have written us concerning the books reviewed and that several have reported the purchase of such books after having read these reviews. The Editor believes that the departments of Ethics and Economics have maintained their high standard and that they are proving to be of interest and importance to readers. During the year it has been our object to present a series of very practical papers on economics. Thus, there have been 2 on the establishment of credit bureaus for the collection of physicians' accounts; 3 additional articles on other methods of collection; 1 upon methods of increasing physicians' incomes; 2 on that very alarming topic—State Medicine—both written by prominent members of the profession; 1 masterly presentation of the subject—Group Practice—by Dr. Joseph Collins; and 1 that discussed industrial medicine from its several angles. If you have not read these articles, we believe it will repay you to review your Journals in order to make up for that oversight; indeed, the numerous papers on economics published in the Journal during the past 5 years would make an interesting brochure if collected for printing in such form.

In January, we established a new department in the Journal, to be devoted to consideration of school health problems. Material for this new department is supplied by Dr. Allen G. Ireland, Director of Physical and Health Education in the State Department of Public Instruction; and of his valuable assistance in other ways we shall have something more to say in another section of this report.

Two slight changes have recently been made in the Journal: The name of 1 department has been changed from "Lay Mirror Reflections" to "Public Relations", because that would give us more latitude in the choice of articles for publi-

cation; and a separate department has been established for publication of obituary notices, so that we might combine in 1 place death notices and resolutions adopted by county societies, and not have these scattered throughout the Journal.

That section of the Journal entitled Woman's Auxiliary is becoming of increasing importance, since it is being more widely read by the women members of physicians' families and they in turn direct the physicians' attention to medical topics upon which their eyes chance to fall.

(2) County Societies. Thanks to improved health, we have done better this year in respect to visiting county societies and we are happy to report having attended meetings in nearly all of the 21 counties; in all but 2, in fact. We were unfortunate in that we could not make our travel schedule coincide with that of President McBride and Secretary Morrison, but that may not have been to the disadvantage of the societies for it enabled each of us to cover points that the other might have neglected to mention.

The Annual Conference of County Society Secretaries and Reporters was repeated in November and there are many evidences of good results growing out of these meetings. In several counties there have been marked improvements in the programs submitted for county meetings; in several others there have been improvements in the reports submitted for publication; in all counties there has been a revival of interest in their relationship to one another and to the state society. The complete report of that conference was published in the December Journal, pages 876-890, and it was intended for the reading by all members of the society—not merely for those who participated—as it embraces a broad discussion of county medical society problems and difficulties and the efforts made to solve such problems in your individual interest. So, again we recommend its perusal if you have not already given it full consideration.

That a coördination of interests and labors, as between neighboring counties, may be profitable has been illustrated by a second successful meeting of all the county medical societies in the Fifth Judicial Councillor District. Under the leadership of Dr. Aldrich C. Crowe a joint meeting of the societies of Atlantic, Cape May, Cumberland, Gloucester and Salem counties, was held April 17, 1930, at Woodbine Colony, a report of which is published in this, the May, issue of the Journal. Not only was it a successful medical meeting but the coming together of physicians practicing in those adjoining counties could not be anything less than stimulating to good will, harmony and fellowship. We take advantage of this opportunity to recommend the plan to the Councillors of the other 4 Districts, suggesting that such a district meeting be held annually in each of the 5 state society subdivisions.

In our regular annual report, we shall have some other county society matters to present; omitting them here because the matters to be referred to are not as yet completed.

(3) Woman's Auxiliary. Under the presidency of Mrs. James Hunter, Jr., the Woman's Auxiliary to the Medical Society of New Jersey has made further progress in the line of organization and by assiduous labor she has greatly strengthened the organization of a number of county society auxiliaries. In a few counties, the local auxiliaries have not yet received from the county medical societies that degree of support which is necessary to proper development, but we have faith that such support will come in the course

of time. Reports of the proceedings of county auxiliaries are regularly published in the Journal and we receive many other indications that the work in general is progressing as well as could be expected. We refrain from directing attention to the excellent work of a few of these county auxiliaries only because we fear that invidious comparisons might be drawn from our remarks. The whole organization is as yet too young for us to require of its branches a large program of accomplishments. You will, however, profit by reading that section of the Journal and noting what the women are doing toward the advancement of professional interests.

During the year the Welfare Committee authorized publication of a booklet which should contain a brief history of the origin of the auxiliary movement, its progress in other states under the auspices of the A. M. A., and a more specific outline of work that might or should engage the attention of county auxiliaries. That Primer of 32 pages was distributed, through the agency of the State Auxiliary President and the presidents and secretaries of county auxiliaries, to every registered member of our auxiliaries, and then to practically every woman in the state eligible to membership. It is hoped that this will help to swell the county and state membership lists by bringing in those who have not previously understood what the auxiliary means and stands for or who have been negligent about joining.

In addition to such distribution at home, we sent a few copies of the Primer to officers of the A. M. A. and of the National Auxiliary. Much to our surprise, the Primer caught the fancy of all those interested in furthering the movement and we have received many letters of praise for the part the New Jersey Medical Society is playing in promoting auxiliary interests. The National Auxiliary has already used a portion of the Primer in a publication of its own for distribution all over the country; the Pennsylvania State Medical Society and its auxiliary have negotiated for a reprint of the Primer for use in that state; the Executive Secretaries of the Wisconsin and California Medical Societies have requested copies for use at home and have been granted the privilege of using the Primer in any way they see fit to advance local medical interests. The Primer is a striking illustration of how a small amount of force delivered at the right time and place may start a very large body in motion. We trust that our own auxiliary will use the Primer, as was originally intended, to stir up enthusiasm and to direct its energies along useful lines of endeavor.

(4) Educational Work. You will recall that we reported last year having previously turned over a large part of this work to Mrs. Taneyhill, who had been designated as Field Secretary to the State Society. We now have the pleasure of reporting that in view of her excellent report last June we delivered the public lecture work for this year entirely into her capable hands. As she will submit her own report, it is unnecessary for us to speak of it further, but as we have followed her work with much interest and kept in reasonably close touch with her plans and accomplishments, we want to express here approval of what she has done and to request favorable consideration of plans she will submit. Incidentally, we congratulate her upon having attained a degree of success far beyond anything that crowned our earlier labors in that field. Mrs. Taneyhill has been devoting most of her time since November last to work in association with the public school system.

You will have noticed on the Official Program of the Annual Convention that provision is made for a special afternoon session of the society, on Wednesday, to discuss various aspects of the physician's relation to school health. These 2 innovations, a special column in the Journal monthly and this special meeting, have grown out of our association with Dr. Ireland since our Field Secretary was so fortunate as to interest him in the public educational program of this society. We trust the society will express its gratitude to him for the new ideas he has given us, for the very great help he has been to our Field Secretary in developing her program, and especially for the hearty spirit of cooperation he has exhibited in the effort to bring the physicians, the school authorities, and the children's parents, to a better understanding of their proper needs and responsibilities.

Radio broadcasting was resumed from Station WPG and in the period between November 22, 1929, and April 11, 1930, our disease prevention program was put on every Friday evening—a total of 21 radio talks. The topics presented and the authors of such articles were:

Prevention of Disease	} All 7 of these by the Editor
First Essential of Good Health	
Successors to Aesculapius	
Hippocrates, the Father of Scientific Medicine	
Galen, the Industrial Investigator	
Medicine of the Dark Ages	}
Harvey and the Prevention of Heart Disease	
Periodic Health Examinations	
Psittacosis	
Mental Hygiene	
The Importance of High Blood Pressure	John S. Irvin
The Mental Hygiene Clinic	Ruben A. Kilduffe
On Being Fat	Bruce B. Robinson
Digging Your Grave With Your Teeth	Harold S. Davidson
Teeth and Their Care	Cole Davis
The Reduction of Maternal Mortality	Robert A. Kilduffe
Deafness; Its Causes and Prevention	Sylvanus F. Reese
Prevention of Foot Trouble	Arthur W. Bingham
Tuberculosis	Charles S. McGivern
Protect Your Children Against Diphtheria	Elmer P. Weigel
Health Education in the Public School	B. S. Pollak
	F. J. Osborne
	Allen G. Ireland

Special thanks of the society are due, and hereby tendered officially, to Sylvanus F. Reese, D.D.S., Atlantic City; Dr. Bruce B. Robinson, Director of the Department of Child Guidance of the Newark, New Jersey, Public Schools; Mr. F. J. Osborne, Health Officer of East Orange; and Dr. Allen G. Ireland, Director of Physical and Health Education of the New Jersey Board of Public Instruction; for their participation in this program.

Our recommendation of last year, that county medical societies should, wherever possible, arrange for broadcasting health programs from local stations, met with favorable responses from Atlantic, Bergen and Monmouth counties; Essex Hudson and Passaic counties promised to consider the matter but we are under the impres-

sion that no actual programs have as yet developed in those counties. Atlantic County joined with the State Society in the use of Radio Station WPG. The Secretary of the Bergen County Medical Society, Dr. Spencer T. Snedecor, reports as follows, under date of April 11, 1930: "We have been giving weekly talks from Station WOR for the past 6 weeks and will continue on Tuesdays at 2.30 p. m. Also weekly talks from Station WBMS, at Hackensack, at 1 p. m. on Sundays. The effects of these talks are intangible, difficult to measure. However, I personally feel that they are meeting with the favor of members of the profession and are getting favorable public responses also—according to the broadcasting stations." Monmouth County reports, through Dr. William G. Herrman, Chairman of its special committee, as follows: "The Monmouth County Medical Society has been giving weekly talks over the local station, WCAP, since December 12. The hour has been 8 p. m. and the day Thursday. A wide variety of subjects has been given, and to date only one man has talked twice. In other words, the representation of this society as a whole has been very good. We have covered a wide range of subjects, starting with the history of medicine, advances in the last 50 years, and then giving talks on such subjects as cancer, tuberculosis, childhood and contagious diseases, head and chest colds of Fall and Winter, immunization, first aid, appendicitis, vitamins, etc. The society has taken considerable interest in the program, and while we have not received any appreciable applause from the laity itself, judged by the letters directed to the local station, the manager of the local station says that a great many people are interested, and since we planned to stop somewhere around the first of April, we have received word that the local station is anxious to have us continue because of public interest. One week in March was missed, due to a misunderstanding between the chairman and the speaker, and on this occasion many people called the station to know why the medical talk was not given."

We hope the 3 counties mentioned will continue the good work, and we again beseech the other 3 counties named to follow the excellent examples set before them. The State Society has been promised the privilege of resuming its talks from WPG in October, but since that promise was made the municipal radio station has been leased to the Columbia system and we are not informed as to whether the promise will hold with the new controllers.

The matter of Post-Graduate Education for the benefit of our own members was passed on this year to a special committee appointed at the last Annual Meeting, and we shall leave to Dr. Cosgrove, Chairman of that Committee, the privilege of reporting what has been done. We may, without impropriety, say that in the exuberance of our joy over the success of this project, we wrote an official letter of thanks to President Thomas, of Rutgers University, and received a most cordial response from him, in which he said: "I have been delighted to know of the success of the courses under the auspices of the Medical Society of New Jersey and our University, and was greatly pleased to have your letter concerning the same. I made report of these classes at a recent meeting of the Trustees, citing it as an outstanding example of the service of our institution, and the members of the Board expressed great interest and satisfaction."

(5) Public Relations. Our relationships and contacts with other organizations engaged more or less in medical work remain upon a highly sat-

isfactory basis. As you will observe upon reading the Annual Convention Program, a great deal of space and time is being devoted this year to consideration of these public relations. Besides an entire session for discussion of school medical problems, another entire session is being devoted to addresses by the official heads of State Departments whose duties involve some contact with medical problems. So far as we know, this is the first time such a group has been invited to sit with us and discuss points of contact and possible points of dispute or disagreement with a view to rendering our relationships even better and of producing a clearer understanding and more friendly cooperation between practicing physicians and state officers with whom they must be directly or indirectly associated.

We have been pleased to note that during the year several of the county societies have provided for public relations committees, so that now our state society is well organized in that respect.

(6) Tristate Conference. We have just completed 5 full years of this intimate association with neighboring medical societies of New York and Pennsylvania and we feel as strongly as ever that this is an association to be favored and continued. In the Journals of February and April will be found complete reports of the sessions held in New Jersey, December 7, and in New York, on February 8; proceedings of the Pennsylvania meeting, held May 24, will be published in the July issue. While all of these proceedings are worthy of your careful attention, we respectfully urge you to read the report that covers pages 156-178 of the February Journal because you will there find a comprehensive summary of the work of this conference during the past 4 years, especially of the part that the New Jersey Medical Society has played in that work, and a review of our own society's efforts to educate the public in medical matters. We have estimated that a compilation of the published reports of the Tristate Conference for these 5 years would make a book of 167 pages, of the same page size as the Journal, in which you would have a fairly thorough consideration of the most important problems that have confronted these 3 state societies during that time. All of this you have, however, scattered through your Journals of this society if you have kept them for binding.

(7) Antidiphtheria Campaign. Recent issues of the Journal, especially those of March and May, contain complete reports of the progress made in this work and of plans for the immediate future. A new campaign of activity is being started May 1, with the object of securing immunization of children under school age. You have all received personal letters from this office, requesting your aid in promotion of that special campaign. Those several communications to you embrace about all there is to say upon the subject, save to thank you individually for the support given to this office in the effort to abolish diphtheria and to ask continuance of your aid in support of that laudable project.

(8) State Legislation. The Chairman of the Welfare Committee will doubtless report to you the result of our legislative labors. The usual number of *cult* bills were introduced this year, but once again we were successful in combating such attempts to break down the public's protection in the Medical Practice Act. Very fortunately, the State Medical Society was doubly well represented at Trenton with Senator Blase Cole in the upper House and Assemblyman Marcus W. Newcomb in the House of Assembly. The latter had to bear the brunt of the attack this time because most of

the obnoxious bills originated in the House but he successfully prevented passage of any of them and scored a very unusual honor in defeating 2 of them in open battle upon the floor. The society owes a vote of special thanks to Dr. Newcomb for his able work this year in its behalf.

The so-called "Hospital Lien" Act was enacted into law. There were 2 bills before the Assembly, the one known as S. 117 being the one that the Welfare Committee finally decided to support, and the one which was passed; A. 284, which included protection for physicians and nurses, as well as for hospitals, seemed unlikely to pass so our efforts were concentrated upon the bill that at least protected the institutions. It may be advisable to ask for an amendment at the next session to cover physicians and nurses.

In our Annual Report to the House of Delegates, we shall direct special attention to the so-called "surgery bill" which was again before the Assembly and was again defeated, but which we think requires further consideration by this society.

(9) National Legislation. Our national representatives at Washington still annoy the profession with the threat of re-enacting the Sheppard-Towner law, under a new name, the Jones-Cooper bill, and of adopting amendments to the Harrison Narcotic Act which will make that law a still greater nuisance to the practicing physician. We are opposing such legislation as best we can but wish to say to you as individual members that the officers of this society and of the American Medical Association will appreciate any aid you can render by speaking to your respective congressional representatives and urging them to vote against these pending bills. While the proposed tariff bill was in the House of Representatives we protested vigorously against a clause in that bill which would have raised the tariff on surgical instruments and greatly increased the cost of surgical apparatus to physicians and hospitals, and we received an assurance that the proposed tariff increase had been stricken out. During the past few months, however, that tariff bill has passed through so many vicissitudes in the Senate and in conference committee that we are unable to say just what is the present status of any particular item.

(10) Office Observation. Under the new arrangements so graciously made by the House of Delegates and the Trustees last year, the office work has been greatly facilitated. We have now a better equipment with which to work, a more comfortable environment, and we hope this is shown in the character of work turned out.

Once again we delight in recording appreciation of the competency and efficiency of our Secretary, Miss Margaret Mahoney. She has become an indispensable factor in the state society work, and at the proper time and place, we shall ask for suitable recognition of her excellent services.

Public Relations

A COUNTRY DOCTOR IN THE CITY

(Editorial, New York Times, March 14, 1930.)

It seems incredible that one so young as Dr. Thomas Darlington could have been, even in his early practice, the only physician in so large an area within the bounds of what is now the greater city. But it is also difficult to think of New York without Brooklyn Bridge, electric lights,

automobiles and telephones. It was in the year in which Dr. Darlington began his practice that permission was given by the Board of Aldermen to lay wires, conduits, etc., and erect lamp-posts in the streets of New York for electric lighting, and that Henry Ward Beecher, speaking in Plymouth Church was "distinctly heard" by telephone as far away as Yonkers and Elizabeth. The elevated roads did not then reach beyond the Harlem River and the subway was only a dream. Cleopatra's Needle had just arrived in New York Harbor, and the Statue of Liberty had not lighted her torch, nor had Brooklyn Bridge yet been completed and opened to the public. Harlem and Spuyten Duyvil, Fordham and Van Cortlandt were still in the country when this young doctor, born in Brooklyn, took up his residence in Kingsbridge and with horse and buggy made his professional rounds by day and night.

So near are we even in this world metropolis to the rural life when the country doctor was, aside from the pastor of the church, the best known, sometimes the most feared, and generally the best loved of all citizens. This particular country doctor, who helped to bring 2000 children into the world, who attended other thousands through their ills to the end of their days, had the unique experience of becoming Health Commissioner for the city which absorbed his professional parish and turned its gardens and its pastures into brick and stone. He must have satisfaction in knowing that he has helped to prolong the lives of many not only by his own applied skill, but also by his indirect service in administering the city's official preventive and remedial activities.

He has obviously followed his own prescriptions and thus prolonged his years of active life. Or is it that he has found equanimity, even in city hurry and confusion, which means longevity? Something, no doubt, is due to his life for years in the open when goats browsed on the upper cliffs of Manhattan Island, when Harlem was a meadow and when the region beyond the Harlem River was still the country.

MEN'S DRESS REFORM PARTY CAMPAIGNING IN ENGLAND

(From N. Y. Times, Jan. 5, 1930.)

A men's dress reform party has been established in England for the purpose of educating men to wear far less and far different clothing. Shorts, the party believes, would be more conducive to health than trousers or plus fours, since they would expose a greater part of the body to the sun and air. Sandals, it is held, would be the best possible footwear for men, and sandal-formed shoes the next best. Designs for the new garments have already been made by the party in an attempt to confer upon men dress having the virtues that women have found in their light attire. Men, so far, have been self-conscious and lacking in courage to be "different", it is said.

At a recent lecture by Dr. A. C. Jordan, secretary of the party, lantern slides were shown which illustrated the changes in men's dress that his party proposes. Among others was an imaginary portrait of Dean Inge in a shorts suit which was described as "quite attractive and not suggesting loss of dignity". A picture of King Henry VIII playing tennis in a loose vest and short stockings that left his legs uncovered was presented as a royal precedent for the adoption of more "sensible" clothing.

In his lecture Dr. Jordan made the following principal points, which are said to express the chief ideas of his party:

"To cover up the body produces immorality by creating mystery.

A man's collar and tie are preposterous, finicky and irritating, tight and uncomfortable.

Man's waistcoat and his braces are so ugly that a man cannot take his coat off when he is too warm.

Trousers are ill-favored and unsanitary monstrosities.

There is no place and no excuse for the hideous and ridiculous 'bags' known as 'plus fours'.

Man's evening dress is the acme of beastliness; it carries the accumulated dirt of years.

Women have saved themselves, but men have hardly begun to struggle against the monster of ugliness and unhealthiness in dress.

The slogan for man is: 'Fewer clothes, lighter clothes, cleaner clothes, brighter clothes.'"

The party's aim in dress reform is to approach as nearly as possible man's original unclothed state in nature. Party leaders see clothes as a necessary evil, valuable for warmth and for protection in most industrial pursuits, but otherwise useless.

DOES IT APPLY TO YOU?

(From the Ohio Medical Journal, November 1929.)

Frequently the statement is made that physicians make notoriously poor patients and that doctors as a class fail to practice what they preach in the matter of keeping the body at the maximum degree of efficiency and physical soundness.

How necessary it is for every physician to submit himself to a periodic check-up of his body was demonstrated recently in a study made by Dr. Frederick R. Taylor, High Point, North Carolina, of 106 physicians, picked at random from various sections of that state.

In examining the 106 doctors, Dr. Taylor found a total of 474 defects, or an average of 4.49 defects per physician. The number of defects per physician was about 30% greater than the number of defects per person in a general group examined sometime previously.

Dr. Taylor in commenting on his findings, said: "Physicians show about double the frequency of harmful habits as do those in the general group, as one half of these consist of excessive hours of work and insufficient sleep—occupational hazards of the practice of medicine that are in some measure unavoidable—there is otherwise no essential difference between the harmful habits of doctors and those of the people as a whole.

It is very difficult for a doctor to use good judgment regarding his own condition. Sometimes, especially when really ill, he worries over trifles. More often, especially when free from symptoms, he shows the familiarity that breeds contempt, and neglects his own physical condition in a way that would cause an outpouring of the vials of his wrath were some of his patients to follow his example. This last point may explain the physician's tendency to neglect the type of defects found in health examinations.

There may possibly be still another reason. Health examinations involve considerable time and careful work. One doctor may hesitate to ask another to spend so much time on him when he knows he will not receive a bill for services.

Once, however, the profession becomes aroused to the real value of health examinations, a doctor will no more object to calling on his professional colleague for a health examination than he will for an appendectomy. Many doctors will be able to reciprocate in this matter. The more physicians have health examinations, the more will the public see the value of them."

Dr. Taylor's suggestion that physicians can do much to stimulate the periodic health examination movement by having themselves examined regularly is timely and valuable. More enthusiasm on the part of the medical profession both in making physical examinations and in submitting to them is sure to be a powerful impetus to this important phase of preventive medicine.

HEALTH EXAMINATIONS SPONSORED BY HOSPITAL

(From the Hackensack Hospital Bulletin of April, 1930.)

There is always new work for the hospital and its physicians to take up. A new need arises and is met.

"Have a health examination on your birthday" is a slogan being broadcast throughout the nation. Prolong your life by conserving it. Avoid the pitfalls of old age and disease by proper living. Frequent check-ups reveal little defects before they become serious.

ROOM OUTFITTED BY PHYSICIANS

The hospital has provided a room near the main entrance which is available for complete medical examinations. It has been furnished with equipment donated by the following physicians: F. S. Hallett, A. R. Spiegelglass, Howard M. Cooper, P. F. Liva, S. T. Hubbard and S. T. Snedecor.

Doctors may now bring patients to this room for careful and complete examinations if they do not have the facilities in their offices. Here the laboratory, x-ray, and other technical aids are at their service if special tests are required.

MEDICAL ABUSES FOUND BY ACADEMY

(N. Y. Times, Jan. 3, 1930.)

Declaring that "all is not well with the medical profession," the annual report of the New York Academy of Medicine, read at a meeting of the organization last night at 103d Street and Fifth Avenue, denounced certain "glaring" professional abuses, such as the overcharging of patients with small means and advocated "an intensive study of hospital practice which would include the qualification and method of appointment" of the medical personnel of hospitals.

The report, read by Dr. Walter L. Niles, also said that the present method of medical testimony in the courts is "highly unsatisfactory from the point of view of the courts as well as from the point of view of the dignity of the medical profession." The report urged a study of this question and contended that there was need of "a satisfactory definition of murder in the first and second degree and manslaughter."

After asserting that "all is not well with the medical profession," the general report of the academy went on to say:

"It is recognized that in the present commercial age, there is a desire on the part of many physicians to achieve financial as well as professional success, and it is regretted that in many instances physicians are willing to place greater financial reward on a higher plane than their professional standards. It is known that there are many physicians who are frequently guilty of gross unprofessional conduct."

"GLARING ABUSES" LISTED

The report enumerated the following "glaring abuses": (1) The overcharging of patients who cannot afford the fees demanded; (2) the publicity obtained by many physicians which indicates that they are better qualified to treat certain conditions than are their colleagues; (3) the division of fees between specialists and the general practitioner.

The report then went on to take up hospitals, saying that while many hospitals are organized on a high plane, "it is known that there are many hospitals which are not well organized, where the professional administration is lax and history and record keeping is practically non-existent." It asserted that there are many hospitals which are not regularly inspected and where physicians act without supervision and operations are undertaken without the knowledge of any other physician.

"It is believed that in some hospitals unnecessary operations are performed by physicians who are inadequately trained for their work," the report said.

It declared that while there are various agencies, such as the State Board of Charities, the Department of Health and the Department of Hospitals, who supervise certain aspects of the work, "none of these agencies exercise any supervision over the qualifications of the physicians in attendance or of the recording of results."

It was urged for this reason that steps be undertaken by the academy "to make intensive study of hospital practice which would include the qualification and method of appointment of the medical personnel."

Dr. John A. Hartwell, president of the academy, appointed a committee to study and make recommendations "in regard to the legal definition of insanity, the disposition of those convicted of criminal offenses and on the question of expert testimony when there is a psychiatric problem involved."

School Health Department

CERTIFICATION OF SCHOOL PHYSICIANS IN NEW YORK STATE

ALLEN G. IRELAND, M.D.,

Director of Physical and Health Education, State
Department of Public Instruction,
Trenton, N. J.

The trend school health supervision is taking is shown by the following requirements established by the Regents Board for school physicians in New York State.

"Physicians to be qualified for certification as school medical inspectors shall possess the following qualifications:

(1) Graduation from a medical school registered by the State Department of Education and licensed to practice medicine in New York State.

(2) One year of acceptable internship. Five years of successful practice in medicine may be accepted in lieu of 1 year of internship.

(3) Six semester hours of postgraduate work in a school or schools of medicine in such subjects and in such institutions as may be approved by the State Commissioner of Education. The following subjects indicate the type of instruction that should be included in such postgraduate courses: (a) Medical examination of school children; (b) psychiatric problems of school age; (c) problems of growth and nutrition; (d) preventable defects of eyes, ears, teeth, posture; (e) school sanitation; (f) communicable disease control.

(4) Six semester hours of postgraduate work in a school or schools of education in such subjects and in such institutions as may be approved by the State Commissioner of Education. The following subjects indicate the type of instruction that should be included in such postgraduate courses: (a) Principles of health education; (b) organization and administration of health education in public schools.

COURSES FOR SCHOOL PHYSICIANS

Columbia University has recently announced the following courses for school physicians:

Public Health, s1—School health supervision I—*medical inspection*. Credit X—4 points. Professor Haven Emerson and associates. 9 to 1 daily including Saturdays, Room B420, College of Physicians and Surgeons, 630 West 168 Street—June 16 to July 2. (In this course such subjects as school sanitation, medical examination of school children, communicable disease control, problems of doctor, nurse, and teachers will be considered in detail.)

Public Health, s2—School health supervision II—*mental hygiene*. Credit X—1 point. Dr. C. I. Lambert and associates. 2 to 5, Room B420, College of Physicians and Surgeons. June 23, 24, and 25. (This course will include lectures and outside reading covering origin, developments, and deviations in the make-up of personality in relation to the different forms of behavior disorders appearing in infancy, childhood, adolescence, and adult life, with special reference to their prevention and relief. The additional 6 hours necessary to complete the 15 will be covered by outside reading and field work.)

Public Health, s3—School health supervision III—*physical education*. Credit X—1 point. Professor J. F. Williams and associates, 2 to 5, Room B420, College of Physicians and Surgeons, June 16 to 21. (The instruction in physical education will present principle and administrative plans for the program of activities including remedial or corrective exercises as well as the athletic games, dance, and gymnastic program.

USEFUL BOOKS

Health Supervision and Medical Inspection of Schools, Wood and Rowell; W. B. Saunders, Philadelphia.

Normal and Elementary Physical Diagnosis, Morrison and Chenoweth; Lea & Febiger, Philadelphia.

Educational Hygiene, Averill; Houghton, Mifflin Co., New York-Boston.

Physical Welfare of the School Child, Keene; Houghton, Mifflin Co., New York-Boston.

Mental Hygiene, La Rue; Macmillan, New York City.

The Hygiene of Instruction, Averill; Houghton, Mifflin Co., New York-Boston.

Communications

CHIROPRACTORS NOT LICENSED TO EMPLOY ELECTROTHERAPEUTICS

(Court decision submitted by Dr. Charles B. Kelley, Secretary Board of Medical Examiners.)

NEW JERSEY
SUPREME COURT
No. 204 May Term, 1929

State Board of Medical
Examiners of New Jersey,
Plaintiff
Plaintiff in Certiorari
vs.

Harry DeBaun,
Defendant
Defendant in Certiorari.

Submitted May Term, 1929. Decided November, 1929
For Plaintiff-Plaintiff in Certiorari:

William A. Stevens, Atty. Gen.
Grover C. Richman, Assistant
Attorney General.

For Defendant-Defendant in Certiorari:

J. Raymond Tiffany.

Before Justices Trenchard, Lloyd and Case.

PER CURIAM.

Harry DeBaun was charged with the violation of Section 10, Chapter 221, Pamphlet Laws 1921, in that he practiced medicine and surgery without a license. The case was tried before the District Court of the First Judicial District of the County of Bergen, the Judge thereof sitting without a jury, and found not guilty. This proceeding is by writ of certiorari to review the finding of the court.

The defendant is a licensed chiropractor. The facts proven by the plaintiff are not in substance disputed. The question is whether the defendant as a licensed chiropractor, by virtue of his license, has the legal right to commit the acts complained of. The testimony of Delia Orr included a recital that the defendant caused the witness to disrobe, gown and lie upon a cot with a large electric lamp over it, that after a time the defendant placed upon her body two discs, one on her stomach and one on her back, and that these discs were connected with an electric machine from which the power was gradually turned on until it got as strong as the witness could endure, whereupon the power in that degree was left on for about a half hour; that at the end of that period the defendant turned the power off, said that the process would draw the muscles of the stomach back in their proper place and that if it didn't he would try something else; for which service the witness paid two dollars.

DeBaun on direct examination was asked with reference to the testimony of Delia Orr: "Q. She testified that you put two wet pads, one under and one over, with the use of some electric contrivances. Will you explain?" "A. That was galvanic current which produces heat for relaxation."

These excerpts from the testimony will illustrate the character of acts that were charged against and admitted by the defendant. The defense is two-fold, namely, that the practices in question were not a violation of the direct prohibitions of the statute and that if they be within the direct prohibitions they are nevertheless waived by Section 9 of the act referred to, which provides that "The prohibitory provisions of this

act as amended shall not apply to * * * the giving of treatment by electricity by any person resident of this State who has been continuously engaged in giving treatment by electricity herein during the past 14 years; provided, that said person has graduated from a legally incorporated electrotherapeutic school in good standing."

The defendant by his own testimony is not a graduate of a legally incorporated electrotherapeutic school in good standing. Consequently, the waiving clause in Section 9 is not applicable.

The defendant was admitted to the practice of chiropractic in 1920 under Chapter 4 of the Pamphlet Laws of that year, "AN ACT to regulate the practice of chiropractic", by the first section of which "chiropractic" is defined—omitting expressions unimportant in this connection—to be the "art of permitting restoration * * * by placing in juxtaposition the abnormal concrete positions of definite mechanical portions with each other by hand * * *." Electricity is a dangerous instrumentality with the ever present capacity to do serious bodily harm unless restrained within proper limitations. It is essential that its use as applied to the human body should be under the direction of authorized persons. Its use in the instant case was a part of the art of healing. The specific use above referred to in no wise involved the function of hand manipulation. We are unable to conceive of any hypothesis in the proofs in the case upon which the use of electricity in the manner stated is a part of the practice of chiropractic. We consider that the acts of the defendant were contrary to the prohibitory provisions of Section 10 of the 1921 act, and that they were not within the exception of Section 9, State Board v. Lezenby, 1 Misc. 20; State Board v. Livesey, 140 Atl. 444; State Board v. Baudendistel, 140 Atl. 886; State Board v. Blechschmidt, 142 Atl. 549.

The judgment of the District Court of the First Judicial District of the County of Bergen is reversed.

FIFTH INTERNATIONAL CONGRESS OF PHYSIOTHERAPY

Liège, September 4-8, 1930

The organization of this Congress is progressing rapidly and we would draw the attention of physicians to the real union which will take place in Liège on the occasion of the International Exposition and the Centenary of Independence.

The Congress of Physical Therapy presided over by Prof. Gunzburg and Prof. De Munter has already received recognition by 20 foreign committees, among which the French section will be under the presidency of Prof. E. Gley, of the Academy; the Holland section under the presidency of Prof. Van Breeman, Secretary of the International League for Rheumatism; the Swiss section under the presidency of Prof. Rosselet, of the University of Lausanne, Secretary of the International Committee on Light; the Spanish section under the presidency of Du Doyen Recasens, of the Faculty of Medicine of Madrid; the section of the Grand Duchess of Luxembourg under the presidency of Dr. Schmollet Weyler; the section of Poland under the presidency of Dr. E. Faber; the Portuguese section under that of Dr. Pires de Lima de Porto; the section of the United States of America under the presidency of Dr. William Benham Snow, Editor of Physical Therapeutics, in New York; the Brazilian section under the presidency of Dr. F. Barrozo; that of England under the presidency of Dr. Kerr Russell; the Austrian section under Prof. Strasser, of Vienna;

Germany under Prof. Grober, of Jena; Hungary under Prof. von Dalmady; the French Colonies in Africa under Dr. Augebaud d'Oran.

The important questions proposed are: (a) Rheumatism and physiotherapy treatment. Papers by Profs. Gunzburg for Belgium, Van Bree-man for Holland, Wierzejewsky for Poland. (b) Affections of the Central Nervous System and Physiotherapy. Paper by Dr. Delherm for France. Sections on Kinesitherapy, Electrology, Hydrol-ogy, Radiology and Actinotherapy will treat special questions, for which about 30 authors were solicited on the fifteenth of September, 1929.

Acceptances may be sent from now on to Dr. Dubois-Trépagne, Secretary-General, 25 Louvrex Street, Liège, Belgium, with the dues of 150 Bel-gium francs. This will facilitate the organization of a Congress which will be noteworthy among the sessions of 1930.

REPORT OF PROSECUTIONS FOR ILLEGAL PRACTICE

(Submitted by Dr. Charles B. Kelley, Secretary of the State Board of Medical Examiners.)

January 27. Martin W. Pretorius, of Atlantic City, paid the penalty for practicing medicine without a license. Dr. Pretorius conducted the New Health Studio and held himself out as a Food Specialist and Naprapath.

January 28. Ernest M. Bick, 11 Elm Court, South Orange, was found guilty of practicing medicine without a license.

January 28. Max L. Berkowitz, a druggist, 132 Spruce Street, Newark, was found guilty of practicing medicine without a license.

January 28. Joseph E. Pisano, a licensed osteo-path, 489 Clinton Avenue, Newark, was found guilty of practicing medicine without a license. He exceeded his license by giving electric treat-ments, colonic irrigations, and prescribing drugs.

February 10. Maime M. Barker, of 65 N. Ful-leton Avenue, Montclair, was found guilty of practicing medicine without a license. Mrs. Barker held herself out as a colonic-therapist.

February 11. Mrs. Landon V. Scheider, who conducted a health home for scientific feeding at 1638 Atlantic Avenue, Atlantic City, was found guilty of practicing medicine without a license. In addition to treating patients by preparing special diets, she also gave magnecoil blanket treatments.

February 11. Sarah Hazzard, of Smiths Land-ing, was found guilty by the Atlantic City Dis-trict Court of practicing midwifery without a li-cense. Unable to pay the penalty, she was com-mitted to the County Jail for 30 days.

February 14. John W. Browning, 170 Grove Street, Passaic, pleaded guilty in the Passaic Dis-trict Court to a charge of practicing medicine without a license.

February 26. Charles Schaeffer, Sr., 101 New-ton Avenue, Oaklyn, paid the penalty for practic-ing medicine without a license.

February 26. Charles Johnson, 841 Kimber Street, Camden, was convicted in the Camden District Court on a charge of practicing medicine without a license. Unable to pay the penalty, he was committed to jail for 30 days.

March 11. Alma Hansen, of Union, who held herself out as a specialist in the treatment of rheumatism, lumbago, and neuritis, was found guilty in the Elizabeth District Court of practic-ing medicine without a license. She refused to pay the penalty and was committed to jail for 1 day.

March 12. Richard Van Rumpt, a Naturopath, who held himself out as being able to eradicate asthma, hay-fever and catarrh, pleaded guilty in the Passaic District Court to a charge of practic-ing medicine without a license and paid the pen-alty.

March 17. Alpha Roy Carpenter, of Westville, paid the penalty for practicing medicine without a license.

March 12. Cometis DeYoung, a licensed osteo-path, pleaded guilty in the Passaic District Court to a charge of practicing medicine without a li-cense. He refused to pay the penalty and was committed to jail for 30 days. The defendant ex-ceeded his osteopathic license by giving electric treatments.

April 4. Bartholomew A. Albini, a druggist of Hoboken, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

April 8. George Lezenby, Jr., a Naturopath of Atlantic City, pleaded guilty in the Atlantic City District Court to a charge of practicing medicine without a license and paid the penalty.

April 8. Angelo Battaglia, of Atlantic City, was found guilty in the Atlantic City District Court of practicing medicine without a license.

PRIZE OFFERED

Beginning this year the American Association for the Study of Goiter will award a cash prize of \$300 annually for the best original thesis dealing with some phase of the goiter problem. Theses should be submitted by June 1, to Dr. Walter M. Simpson, Chairman of the Essay Committee, Mi-ami Valley Hospital, Dayton, Ohio. The award will be given immediately following the coming meeting of the Association which is to be held in Seattle, Washington, July 10-12, 1930.

PROTECTION IN PRACTICE

(Letter received from E. S. Corson, M.D., Bridgeton, N. J.)

TO THE EDITOR: I wish to thank the Special Committee on Indemnity Insurance for the help I received in defending a recent malpractice suit. I wish, especially, to thank Mr. William H. Prather and his associates for satisfactory ad-justment of the claim made against me for an accident that occurred while using the fluoro-scope to aid in extracting a needle from a pa-tient's hand. The U. S. F. and G. Company paid the entire indemnity of \$5000 and kept the case out of court.

Ethics and Commissions

(Letter from Dr. Elbert S. Sherman, Newark, N. J.)

April 10, 1930.

Editor of the Journal of the
Medical Society of New Jersey.

Dear Sir:

In the March number of the Journal appeared an article entitled, "Some Ethical and Unethical Contacts", by John Hammond Bradshaw, M.D., F. A. C. S., of Orange, N. J. The paper is timely and valuable, and written in Dr. Bradshaw's usual delightful style. It contains, however, one state-ment which is so much at variance with the facts that it cannot be allowed to go unchallenged or uncorrected.

Dr. Bradshaw says (*italics are his*): "And yet, sad to relate, when talking to a number of opti-

cians on visiting their stores at a very recent date, I was informed that *at least* 75% of the oculists of the state of New Jersey accept, and some demand, commissions!" In this amazing, unjust, ill-considered statement Dr. Bradshaw tells your readers that according to his information at least 75% of the medical men of this state engaged in the practice of ophthalmology are receiving, and sometimes demanding, a secret commission or rebate from the opticians, on prescriptions for glasses referred to them.

I at once surmised that Dr. Bradshaw had been having his "leg pulled"; that he had obtained his (mis-) information not from opticians but from optometrists, who have about the same regard for the medical profession that the Anti-Saloon League has for Al. Smith. Oculists do not refer their patients to optometrists for the filling of prescriptions for glasses. They send them to dispensing opticians. These gentlemen know more than any one else about the alleged practice mentioned by Dr. Bradshaw. Therefore, in order to confirm my belief that Dr. Bradshaw had been maliciously misinformed and misled (why he "fell" for it I can't understand), I wrote the following letter to all the dispensing opticians of Essex County:

After quoting the above statement of Dr. Bradshaw and stating when and where it had appeared, I continued: "This is a serious reflection on the integrity of the opticians and oculists and is, I believe, a gross exaggeration. As the dispensing opticians are in a better position than others to know the facts, I am writing to you and to the other dispensing opticians of Essex County for an expression of opinion on this matter. From your knowledge, or reliable information, will you kindly tell me to what extent, if any, the practice of opticians giving oculists a commission on prescriptions sent to them is carried on? Any information that you may give me will be confidential. That is, your name will not be used without your permission."

Most of the opticians replied promptly. The general tenor of their information was to the effect that Dr. Bradshaw's allegation has very little, if any, foundation in fact. The correspondence is too voluminous to publish in full, but a few typical expressions of opinion are appended hereto.

Mr. Spasch: "I have been in the optical business in Newark, N. J., for the past 35 years. I am in a position to know something about the oculists that I have come in contact with. I have never paid any commissions."

Mr. Deuchler: "In reply to your letter of the thirty-first instant, regarding commissions being paid to oculists for prescriptions received, I am pleased to say that the statement made by the writer on medical ethics is untrue, as far as oculists in this vicinity are concerned. I do prescriptions work for most all of the oculists in this vicinity, and have as yet to pay a commission or have any of the oculists demand the payment of commission for their prescriptions sent to me."

Mr. Steigler: "I can only say definitely about the conduct of my own business that I have never given, nor has any oculist ever asked for a commission on prescriptions sent to me to be filled. I have heard that a practice such as you mention does exist, but I am in no position to prove or disprove of it."

Mr. Reiss: "As a dispensing optician of many years' experience and further as the President of the Guild of Prescription Opticians of America, I say to you without any equivocation that the

statement is absolute falsehood. There are perhaps only 2 oculists in Essex County who make a profit on the sale of glasses, but only by doing their own dispensing, because in my opinion, and so far as I know, no dispenser, especially Guild members, would pay them commission."

An unwarranted statement of this kind is particularly harmful when made by one of Dr. Bradshaw's high standing in the profession. If it cannot be justified it should be retracted.

May I add, sir, that in my opinion the editorial functions and prerogatives should include the ability to perceive the falsity and harmfulness of such statements as that referred to, and the privilege of eliminating them from matter presented for publication?

(Signed) Elbert S. Sherman, M.D.

Response of Editor

April 12, 1930.

Dear Dr. Sherman:

The last paragraph of your letter, directed at the Editor, is accepted as the expression of a patent truth and the Editor desires to inform you that he not only exercised the prerogatives and functions referred to, and used such ability in the line of perception and judgment as he possesses, but, that he happens to be in possession of some reliable testimony that supports the statement related by Dr. Bradshaw; all of which the Editor says to you in a spirit of good humor and the best of friendship.

(Signed) Henry O. Reik, M.D.

OMISSIONS FROM OFFICIAL LIST

(Letter from Dr. J. B. Morrison, Secretary Medical Society of New Jersey.)

To the Treasurers of Component Societies, and the membership of the State Society in general:

Six months ago a copy of the Constitution and By-Laws of the State Society was mailed to every member in good standing. Your attention is respectfully called to Chapter 1, Sec. 2, of the By-Laws:

"February first of each year is the final date for closing the 'official list'. *Five days before this date* the treasurer of each component society shall forward to the treasurer and to the secretary of this society a complete list of all paid-up members, with their correct addresses. *After this date no name shall be accepted for the official list.*"

It is mandatory on my part to close the official list on February first. This year, since that date, some 200 names have been received, 140 of them within 10 days after that list was closed. All these members have been reinstated in this office and their names forwarded to the American Medical Association at the close of the month in which they were received. The names were also sent to the Publication Committee and to the Insurance Company Committees or to the Companies direct.

Below is appended a list containing all the names so received. They are being published at this time because this office does not propose to write 200 letters to delinquent members reporting that they have been reinstated. This kind of list *will not* be published in the future, as such procedure would only add a premium to care-

lessness and indifference. Every member knows that his dues are *payable January first*. It is his business to attend to this and he has no one but himself to blame if his name does not appear on the "official list". Were this office to publish such a complementary list every year it would soon contain as many names as the official list and the latter would be of no value.

A few of the names on this list are new members and should not be classed as delinquent.

Angelillo, M. C.
Applegate, A. T.
Ackerman, Joseph
Alexander, Samuel
Adams, Rayford K.
Albertson, W. C.
Adams, Flora

Bateman, Sidney
Bossert, Chas.
Braidstadt, C. A.
Buckey, J. L.
Bull, W. J.
Boker, E.
Busch, H.
Blakey, A. P.
Brown, J. S.
Black, LeRoy
Beyers, C. W.
Bell, J. Finley
Bregnean, Alex.
Brooke, C. R.
Brown, J. L.
Birdsall, C. A.
Becker, F. C.
Brick, G. J.
Butler, Vincent P.
Becker, I. V.
Briody, H.

Christian, A. C.
Conover, E. E.
Cook, H. F.
Corrigan, Geo. F.
Condon, J. F.
Conlon, P.
Coward, Edwin H.
Crawford, G. V.
Carey, D. S.
Curtis, Donald
Caldronney, T. L.
Corson, Allen
Curtis, Howard C.
Cattell, Henry W.
Cornwell, F. N. W.
Connelly, J. F.
Chester, Maurice
Conrad, E. K.
Chesler, Maurice
Chattin, J. F.
Crounse, D.

Dennin, Jos. W.
Dublin, Geo. J.
Davis, Byron G.
Davis, Harold L.
Dagnostin, Henry
Dodson, Louis W.

Ellis, A. J.
Evans, James L.
Eaton, Alvin R.
Enright, J. G.

Faison, John D.
Forte, Frank S.
Freeman, R. D.
Fiedler, Michael
Flach, Adolph
Feit, Herman
Fisher, P. C.
Fooder, H. M.

Ganot, F. I.
Goodrich, S. L.
Gardam, J. W.
Guthrie, W. G.
Goffman, Emanuel
Guillium, Wm. H.
Grimes, Jessie R.
Gray, F. C.
Greenfield, W. J.
Gillet, H. E.
Goldberg, David
Gaugh, Wm.
Gregory, Marie F.

Hilton, C. O.
Hadley, C. F.
Harryman, Wm. K.
Halsey, K. W.
Hellbranth, Roland
Haley, Mark J.
Horn, M.
Hitzman, Louis H.
Halpern, H.
Houghton, Jas. T.
Hamilton, B. C.
Hart, H. M.
Horwitz, H. J.
Halsey, L. W.
Hampton, Geo. B.
Harrington, C. L.
Haseltins, S. L.
Herbener, E. G.
Hagen, O. R.

Jones, E. C.
Johnson, George L.
Johnsen, S. W.

Iserman, Michael

Krans, Clare de H.
King, Chester A.
Knox, C. A.
Kearney, John V.
Kessler, H. H.
Keeney, James C.

Leyenberger, S. B. W.
Lumis, M. F.
Lyon, Chas. H.
Lueddecke, Rowland E.
Levitas, Geo. W.
Liva, P. L.
Lamey, A. W.

Lowell, M. E.
Lummis, M. F.
Lupin, Edward E.
Lawrence, G. W.
Luongo, F.
Lurie, Sol. I.
Levine, I.

Mackey, D. E.
Magill, Marcus
Mass, M. A.
Marguillis, Boris
Martine, F. L.
MacDonald, W.
McGeehan, S. M.
Madden, Leland S.
Macauley, F. A.
Morrow, Jos. R.
Meyer, Clifton S.
Magner, J. J.
Moffat, Barclay W.
Mutchler, H. Raymond
MacDonald, W. S.
McDonnell, G. E.
McDermott, Vincent
Minnefor, C. A.
Malloy, A. J.
Macalister, Alex.
Meeker, Frank B.
McFeeley, P. R.
Madaraf, John F.
MacGuffie, R.
Meneve, A.

Nattrass, R. B.
Nay, Chas. K.
Nittali, R. N.
Ney, J. Marshall
Nash, W. G.
Ney, J. M.
Norton, James P.

Oakes, A.
Opfermann, John L.

Peteler, Alois
Pilkington, Albert A.
Panitch, Wm.
Phelan, Edward
Polevski, J.
Pudney, W. K.
Pettit, H. H.
Pagenelli, T. R.
Prather, J. W.
Paulson, A. N.
Polk, C. C.
Phelan, W. F.
Pallen, Conde de S.
Perham, Roy G.
Prout, Wm. B.

Ravitz, S. F.
Runnells, J. E.
Rothseid, Abraham
Renzulli, F.
Robins, David
Robinson, Wm. A.
Reyner, Daniel C.
Robinson, L. H.
Rothenberg, S.

Reed, Hilton S.
Ruvane, J. J.
Strickland, Geo. W.
Shapiro, Maurice
Shepard, Myron
Saunders, O. W.
Seymour, E. T.
Sherlock, Margaret
Stuart, J. Earle
Segal, Meyer M.
Smith, Ellis L.
Shannon, J. B.
Shapiro, Nathaniel
Shaw, Harry E.
Sander, M. W.
Sealey, H. J.
Smalley, Sara
Slocum, Harry B.
Scott, Karl M.
Salsberg, R. H.
Saslow, B.
Satchwell, H. H.
Spinner, S. L.
Siegler, Julius
Sutherland, W. S.
Schacter, H. A.
Sievke, J.
Scullion, Arthur
Seward, Fred H.
Shore, Ernest L.
Stuart, Alex. J.
Sullivan, D. C.
Schull, Elliot C.
Smith, Clyde F.

Townsend, John B.
Tucker, W. S.
Tucker, W. G.
Tunison, G. O.
Tansey, W. A.
Teitelbaum, M.
Taylor, H. W.
Townsend, Theo. E.
Talty, J. C.
Teeter, Russell K.

Vail, Wm. Penn
Vroom, W. L.
Vreeland, R. D. L.

Walsh, T. M.
Ward, Geo. Harold
Williams, W. C.
Wherry, Elmer G.
Wilson, R. B.
Wolfs, J. S.
Weston, C. G.
Willoughby, W. F.
Walker, Levy M.
Wort, F. J.
Wolfe, W. W.
Winn, Samuel L.
Williams, R. A.
Weiner, Samuel E.
Wescott, Wm. C.

Young, F. C.
Zwick, W. Walter
Zeithin, Herman H.

NEW MEMBERS—NOT DELINQUENTS

Beres, A. L.
Cloud, A. W.
Johnston, S. F.
Vanderbeek,
Teskey, Stanley
Larossa, Ernest A.
Africano, J. V.
Zeithin, H. H.

In Lighter Vein

More'n Likely

Dr. Edward L. Wharton, president of the New Jersey State Dental Society, predicted to-day that in a thousand years people may be born without teeth.—New York Times.

(The Editor of this Journal hopes for reincarnation about that time.)

Talking Turkey

Irate Master (to Negro servant)—"Rastus, I thought I told you to get a domestic turkey. This one has shot in it."

Rastus—"I done got a domestic turkey, sir."

Master—"Well, how did the shot get in it?"

Rastus—"I 'specks they was meant for me, sur."—R. R. Magazine.

All Explained

The minister called at the Jones home one Sunday afternoon, and little Willie answered the bell.

"Pa ain't home," he announced. "He went over to the golf club."

The minister's brow darkened, and Willie hastened to explain:

"Oh, he ain't gonna play any golf. Not on Sunday. He just went over for a few highballs and a little stud poker."—Masonic Craftsman.

Taking His Medicine

A portly woman of very elusive beauty was addressing a meeting on temperance reform.

"My friends," she said, "I had a husband who was addicted to the bottle. He was a great trial to me, but one day I persuaded him to take the pledge. He did so, and my joy was so great, so overwhelming, that I flung my arms around his neck and kissed him."

"And served him jolly well right!" added a voice from the crowd.—Boston Transcript.

Call the Dog

Motorist—"Are you hurt, my boy?"

Butcher Boy (excitedly)—"No, but I can't find my liver!"—Boston Transcript.

Luck

Oh, yes, we believe in luck! Every man who holds a big job or owns the business gets there through luck. All he has to do is to cultivate a pleasing personality; make himself well liked by others; sow seeds of kindness and good cheer wherever he goes; perform his work better than the "unlucky" man does; render the most and best service possible, regardless of the salary he is getting. Luck almost invariably does the rest.

Defeating the Doc

Patient—"I say, doctor, don't you think it would be a good idea if I were to pack up and go to some place where the climate is warmer?"

Doctor—"Good heavens! Isn't that just what I've been trying to prevent?"

—Royal Arcanum Bulletin

An Installment Infant

"I have just paid the doctor another \$15 on his bill," announced Harold as he entered his wife's room.

"Fine!" said the wife. "Just think; only three more payments and the baby is ours!"

—Kansas City Star.

Current Events

MAKE 1930 A PRE-SCHOOL IMMUNIZATION YEAR

(Issued by the Antidiphtheria Campaign Committee, F. J. Osborne, Chairman.)

The Executive Council of the New Jersey Committee for the Prevention of Diphtheria is convinced that the campaign which has in the past been largely devoted to protection of school children, should now shift its emphasis to the *pre-school child*. This does not mean that immunization of school children is not important or should be neglected; this is still the most obvious group for the beginning of any local campaign, and where it has not already been done, the local committee should cooperate with the school authorities to get it under way. The State Department of Education has endorsed it unequivocally and these procedures, as an annual event, are now routine in most communities in New Jersey.

However, evidence is constantly accumulating to show that more than $\frac{1}{2}$ of the morbidity and from 60% to 85% of the mortality from diphtheria occurs in children in the younger age groups, bulking largest in those from 2 to 4 years of age. Material recently compiled by the State Department of Health indicates that the reduction in morbidity from this disease is primarily in the group from 5 to 10 years of age, and that while some decrease is noted in the younger age groups it in no way compares with that in the higher ages. There are still upward of 6000 reported cases in New Jersey annually, with between 450 and 500 deaths.

It is plainly evident that if this disease is to be eradicated, as it can and should be, some more definite effort must be made to protect the youngsters. This is far more difficult than to immunize school children for, while large numbers of the latter have been protected by the family physician, the great majority have received their toxin-antitoxin through local clinics usually held in the public schools and operated in cooperation with and approved by physicians of the community.

The trick in immunizing pre-school children is a two-pronged attack:

(1) For the parent to be convinced of the essential need.

(2) For physicians to encourage it and be prepared to administer it.

This then calls for a new piece of machinery; an organization which will get the child by way of the parent into the hands of the physician, and if the disease is ever to be controlled it would appear that it must be done in either of 2 ways: (a) by greater extension of private practice in this field; (b) by establishment of increasing numbers of clinics.

You are all familiar, I believe, with the following resolution adopted by the Executive Council of the State Campaign Committee: "It is the sense of this committee that, preferentially, diphtheria immunization should be done by the family physician, but where the establishment of clinics becomes necessary to secure immunization in any community, an effort be made to carry on such work by the county antidiphtheria committee in cooperation with the county medical society." This, you will see, varies in both its principles from the practice so commonly in vogue in other states, where free public clinics have

been largely used because it was not found practicable to immunize a sufficient number of pre-school children through private practice. It is our hope that the following plan for attacking this problem may prove effective not only in protecting the children but in anchoring these protective procedures where they rightfully belong—in the hands of practicing physicians.

ORGANIZATION OF CAMPAIGN

No promise of success can be seen in the prevention of diphtheria among pre-school children without an effective organization. What is suggested as the "set-up" for a county organization is also applicable for local committees except that in the individual communities the personnel will be those locally prominent, informed and interested, while in the larger units they will be similar persons representing county agencies.

The most important bodies for this work are members of the organized medical profession and Boards of Health, particularly where full-time health officers exist. The medical men can sponsor the movement, organize the immunization campaign and, where necessary, man and conduct clinics. The Health Department would cooperate in such work and with other health agencies and with lay groups of men and women all of whom, working together, can do the educational work through the various channels of publicity, can set up machinery for making a census of the pre-school children, organize methods of making contact between the parents and physicians and, where clinics are organized, they can arrange to get the children to and from them.

The same type of persons should be included in local and county committees as those suggested in the accompanying "Plan of Procedure". This information, so far as it goes, is applicable to the pre-school campaign, particularly as regards publicity and establishment of clinic services. It is plain, however, that additional provision must be made for close coördination of the efforts necessary to get the pre-school child into the doctor's office for immunization. Once this course is charted, however, and the channel well defined, there should be no danger of conflict in the future and the time should come when protection against diphtheria in this way will be as generally accepted as a school prerequisite as is vaccination against small-pox at the present time. When this time comes, diphtheria will have largely disappeared. Until and unless we can make it come in New Jersey, this disease will remain with us.

It will be advisable for each local committee (the chairman to be selected by the County Chairman) to set up the following active sub-committees:

Lecture Committee—to care for requests for speeches.

Publicity Committee—(see the "Plan".)

Finance Committee—to provide the modest funds for those things suggested in the "Plan".

An interested and active Secretary is as necessary as a good Chairman. There is always somebody available who has time and inclination for such service on either county or local committees. They should be chosen carefully, not only for ability but for acquaintance with people who will help in these voluntary duties.

PLAN OF PROCEDURE

The following plan is suggested as a working basis for the committees in the various municipalities of the state:

Pre-School Census. Before an exact idea of the

problem can be had, we must first of all find out how many pre-school children actually exist. This has been done in other states and the Parent-Teacher Association in New Jersey has in many sections already made such surveys in connection with their "Summer Round-Up" campaign.

(a) The first point at which information can be had is in the registration office for births. The local registrar of vital statistics will doubtless be glad to turn records over for such tabulations as may be desired. It may be easier to block out the town and apportion it among a group of house-to-house canvassers to obtain this information.

(b) When the number of pre-school children is determined, personal visits should be made to the families to learn the name of the family physician. This information may be obtained from the birth certificates but often not if the birth took place in a hospital. Then, too, the family physician is sometimes changed and the doctor with whom the Committee should work in a given case is the one at that time attending the family. These visits should preferably be made by nurses or by tactful volunteer workers. Insurance agents have cooperated most admirably in this connection.

METHODS OF PERSUADING PARENTS TO HAVE CHILDREN PROTECTED

(1) In the first place, it will be necessary to ascertain accurately whether or not a given child has been immunized. Many children have already received treatments from the family physician.

(2) Much tact and patient kindness will be necessary in many cases to convince the parents that this protection is important. So many prefer to wait until the child enters school. With 80% of the mortality occurring at 5 years or under, this is obviously an inexcusable delay. Nothing like 100% acceptance can be hoped for but most parents, when the dangers are fully presented, will be glad to accept protection for their children. When they have become convinced, they should be encouraged to get in touch at once with their physicians and ask them to immunize all children from 6 months to 10 years of age, especially those of 5 and under.

(3) It may be necessary at the end of 6 months or a year to send a follow-up letter to certain parents who have neglected the matter and in some cases even follow-up visits may have to be made. Nothing short of an immunized child should satisfy. This only makes the effort worthwhile.

ASSISTANCE AND ENCOURAGEMENT OF PHYSICIANS TO IMMUNIZE THESE CHILDREN

First, of all, a letter should be addressed to the physicians of each community telling them that the state campaign is endeavoring in every suitable way to discourage public clinics for this purpose and to encourage immunization in private practice. Protection against diphtheria can and should be the concern of the family physician, though determination of whether immunity has actually been established may have to be assumed by Health Departments.

At the end of 3 months, the physician attending a given child whose immunity certificates has not been received by the Committee or filed with the local Health Department, should be followed up in much the same way as described for parents. This may be done by letter, by telephone, or by personal visit. Only by *this kind of physician interest* can many parents be expected to

participate in this movement. Certainly no doctor should be indifferent to this effort to protect the children of his clients and, as no Schick Tests are recommended, but only inoculations, no physician should fail to take an active part.

To carry out this procedure, it will be necessary to keep accurate records carefully checked over and brought up to date. The Committee should not expose itself to criticism by irritating either the parents or doctors by urging inoculation of a child who has already received it.

SUGGESTIONS FOR ORGANIZING AND CONDUCTING NECESSARY CLINICS

It will probably be found that in some cases the parents are willing to have their children immunized but that for some reason or other it cannot be done in private practice. The family may not be able to pay even the standard fee of \$5 or \$6 for the 3 inoculations recommended by the State Medical Society, or there may be no recognized family physician in attendance, or they may be new to the community and know no doctor or, in rare instances, the family physician may not approve of these protective procedures. Where such conditions exist, it is obviously desirable to clean up these missed children by some clinic method.

The resolution carried in this document suggests that such necessary clinics be established and conducted by the County Diphtheria Committee in coöperation with the County Medical Society. If this policy is accepted and an honest effort is made to set up such clinics, there should be no need for public clinics under lay or official auspices for this purpose. Naturally, the Health Departments and voluntary health organizations will coöperate with such professionally organized and manned clinics, and only where this system breaks down are special clinics under other than medical society auspices to be encouraged.

A motor corps auxiliary should be established in connection with these clinics, for many of the pre-school children, particularly those living at a distance, must be brought to and from the clinic.

SUPPLEMENTAL SUGGESTIONS

Another essential for the efficient control of these clinics and accurate knowledge of their accomplishments is a well-organized system of record keeping. The standard record forms for such clinic use are available through the State Department of Health.

Toxin-antitoxin and toxoid (the latter is now recommended for pre-school use) are available in quantity from many of the pharmaceutical houses or firms manufacturing or selling biologic products.

A part of the educational campaign this Spring is a poster project in the high schools and normal schools throughout the state. These posters will be available in all high schools in April and it is suggested that the Parent-Teachers Association be represented on any local committee since they are being asked to get these posters from the schools and have them displayed in department or other prominent stores during the campaign.

Head everything up toward May 1 as the active immunization period. This has come to be known as National Child Health Day and is the appropriate time to institute a movement such as this which is designed for the protection of pre-school children.

Additional information may be had by addressing the Director of Health, State Health Department, Trenton, New Jersey; Dr. Henry O. Reik,

Executive Secretary, State Medical Society, Vermon Apartments, Atlantic City, New Jersey; the Chairman of the State Committee, F. J. Osborne, Civic Center, East Orange, New Jersey; and literature for distribution will be sent out from publicity headquarters, 21 Walnut Street, Newark, New Jersey.

It is also planned to send to each Chairman before May 1 a very brief report form in order that some idea of the number of children actually immunized may be had by the State Committee at the termination of the Spring Campaign.

Woman's Auxiliary

THE BLUE PRIMER

We are pleased to report that the Primer for the Woman's Auxiliary to the Medical Society of New Jersey has not only been welcomed by those for whom it was designed and prepared but has been well received in other states where a few copies were sent to friends interested in developing the national and state auxiliary movement. Believing that our readers will be interested in learning the opinions of those who have reviewed the primer, we are taking the liberty of publishing herewith extracts from some of the letters received in the editorial office:

"I have pondered over the contents of your booklet with the greatest interest. It fills a long felt want."

Mrs. J. Newton Hunsberger,
(President-Elect Woman's Auxiliary
to the American Medical Association)

"I have read it with a great deal of interest and with much benefit. Having been intimately connected with the Auxiliary for several years in its stage of slow but sure development, I appreciate the great advantage the doctors' wives in New Jersey have in receiving this valuable information."

Mrs. Allen H. Bunce,
(Ex-President Woman's
Auxiliary, A. M. A.)

"This booklet is splendid, and you are doing just what I wish we could do in Virginia."

Mrs. Southgate Leigh,
(Ex-President Woman's
Auxiliary, A. M. A.)

"I want to thank the author of the New Jersey Auxiliary Primer for every word in that splendid booklet. It is great! We have been at the task of revising our organization material and the Primer gave me the inspiration needed for ending the story."

Mrs. E. V. DePew,
(Chr. Program Com.,
Woman's Auxiliary, A. M. A.)

"Your booklet is beyond criticism. I have not seen anything as good since Mrs. McReynolds' first 'Auxiliary Facts'. Pages 26-32 are applicable over the entire country."

Mrs. W. Wayne Babcock,
National Organizer,
A. M. A. Auxiliary

"Mrs. McReynolds being ill at the moment, I am taking the liberty of answering for her. We

both very deeply appreciate the comprehensive and skilful manner in which you have handled this subject, which will always be to us a matter of considerable interest."

John O. McReynolds, M.D.,
Dallas, Texas.

"Thank you for copy of the Bulletin gotten out for the Woman's Auxiliary in New Jersey. I am going to look it over with a view to availing myself of its contents in further discussions of this movement."

Morris Fishbein,
(Editor Journal A. M. A.)

"Have not had time to examine it carefully, but even a cursory examination leads me to believe the Primer will be extremely helpful."

Olin West,
(Bureau Public
Instruction A. M. A.)

"May I take the liberty of referring other state organizations seeking information about this matter to your office for a copy of this booklet? I think some men prominent in the profession have wondered whether organization of the Auxiliary was a step in advance. I believe thoroughly that it was and that these organizations, properly advised and directed, can be a helpful means of bringing about better understanding on the part of the public, of the purposes and methods of the medical profession."

Walter F. Donaldson,
(Secretary Pennsylvania
Medical Society)

"It is, to my mind, the most material effort on the part of representatives of a State Society to establish on a firm foundation said Society's Woman's Auxiliary."

John M. Dodson,
(Secretary and General
Manager, A. M. A.)

An Explanation

When preparing the Primer we had very little information at hand relating to the origin and early procedures of the Woman's Auxiliary to the organized medical profession. Consequently, we probably omitted reference to some persons who had most to do with the formation of auxiliaries in other states and through the American Medical Association. In the letter from which we have already quoted a sentence regarding the Primer, Mrs. Southgate Leigh further said: "I regret very much that I have not seen any reference to Mrs. S. C. Red, of Houston, Texas, who should be given all credit for the National Auxiliary. It was she who presented the matter before the House of Delegates of the A. M. A. in St. Louis in 1922, and outside of Texas the existence of medical auxiliaries is due primarily to her work. She was the first President of the National Auxiliary, was reelected after her first term, and declined a third election because of ill health."

We are pleased to learn the above facts and to pass the information along to readers of the Primer.

Bergen County

Reported by Mrs. Edward W. Clarke

The April meeting of the Woman's Auxiliary to the Bergen County Medical Society was held April 8, at the Englewood Hospital, at 8.30 p. m.

The 15 members present were glad to welcome Mrs. Wm. K. Harryman as a new member.

Our President, Mrs. Sarla, announced a luncheon on May 13 in honor of our State President Mrs. James Hunter, Jr.

Mr. Chandler, Health Officer of Hackensack, gave a most interesting address on the "Relation of Public Health Work to the Doctor's Practice." A lively discussion followed.

Cape May County

Reported by Mrs. O. R. Ziegler

The April meeting was held at the home of President Mrs. Frank Hughes, at Cape May on Wednesday, April 16 at 3 p. m. Plans were made to entertain mothers of members of the County Medical Society at a Musicales-Tea on Wednesday, May 14, 3 to 5 p. m., at the home of Mrs. Hughes. Following delegates and alternates were elected to attend the State Convention in Atlantic City:

Delegates: Mrs. Frank Hughes, Mrs. G. F. Daniels and Mrs. H. H. Tomlin. Alternates: Mrs. A. C. Crowe, Mrs. H. Pettit and Mrs. O. F. Ziegler.

We are also planning for the Auxiliary to visit the Girls' Institution in Vineland, N. J., in the near future.

Essex County

Reported by Mrs. George A. Rogers

At a meeting of the Executive Committee of the Woman's Auxiliary to the Essex County Medical Society, held on Monday, April 14, the matured plans were presented for offering a course in "Maternal Training". This work has been accomplished with the cooperation of the Educational Department of the Y. W. C. A. of Newark, under whose management the lessons will be given. The instructor is experienced as both nurse and teacher, besides being the mother of 2 children. The course will consist of 6 lessons, 2 given each week at a cost of \$5 plus \$1 registration fee, to begin in the middle of September.

The subject matter adapted and prepared by members of the Executive Staff has been approved by the Advisory Board from the Essex County Medical Society.

A series of lectures, beginning October 1, on "Child Training" will be given for "Parents of Adolescent Children". Each lecture will be given by a man or woman who is an expert in his or her particular field. There will be 5 lectures in each course; a nominal amount for admission being charged. These also are given by the Y. W. C. A.

Another constructive piece of work is well under way, namely the plan of offering a scholarship each year to a son or daughter of an Essex County physician, the recipient to be a member of the junior class of a medical college, and the award to be made on the ground of scholarship.

A series of entertainments for the next year's session has already been projected, the proceeds to go to the scholarship fund.

This will be presented to the auxiliary for approval and ratification at the business meeting to be held in May.

Mercer County

Reported by Mrs. George N. J. Sommer

The Mercer Branch of the Woman's Auxiliary to the New Jersey Medical Society will hold a meeting at the Peacock Inn, in Princeton, on Wednesday, May 7. Luncheon will be served at

2.30, followed by a talk by Dr. William G. Schauffer, of Princeton, on the "Reasons Why the Auxiliary Was Organized". There will then be a business session followed by Bridge. We are asking the Hunterdon County Branch to join us because we hope Dr. Schauffer will give us such good and logical reasons for our Auxiliaries that membership in both Mercer and Hunterdon counties will increase. Our Mercer president, Mrs. John B. Sill, will preside. She will appoint a nominating committee.

Passaic County

Reported by Mrs. N. P. Lobsenz

The March meeting of the Woman's Auxiliary to the Passaic County Medical Society was held at the Woman's Club, Paterson, on Thursday, March 13, Mrs. James P. Morrill, presiding.

Plans were made to visit the Valley View Sanatorium, Preakness, N. J., on April 10. This trip has since materialized and was a source of pleasure to all who attended. Cars were furnished by members of the auxiliary.

The Valley View Sanatorium, a hospital for the care of tuberculous patients of Passaic County, is one of the finest in the United States, both in personnel and equipment. To this end, untiringly and unceasingly, has Dr. Orville R. Hagen, of our own county, directed all his efforts and energy and he almost solely has pioneered the entire movement. We, the citizens, of Passaic County are indeed greatly indebted to him, for the Valley View Sanatorium might virtually be called an everlasting memorial to him.

On Wednesday afternoon, February 19, a card party was held at the home of Mrs. Morrill, 310 Broadway, Paterson, with 52 women present. It was a most enjoyable afternoon, as well as a profitable one. A vote of thanks was extended to Mrs. Morrill for her kind coöperation.

Under the educational program, Mrs. Orville R. Hagen commented in a most enlightening manner on the Biography of "Emma Hart Willard".

The members were especially urged to attend the annual convention in June.

Adjournment was followed by refreshments.

the Mayor had always been very considerate in turning over all such matters to the society and that he had written the Mayor that the society was very much opposed to this sort of broadcasting.

Dr. W. J. Carrington expressed his appreciation to the men who had joined the postgraduate classes being held each Wednesday night at the Atlantic City Hospital in conjunction with Rutgers College and stated that it was not too late for anyone to enroll who wished to do so upon payment of \$30.

A clinic night will be held at the Atlantic City Hospital on April 25, and all members of the society are invited as well as physicians of adjacent counties. These meetings are held every 3 months and presented by the members of the Hospital Staff on service at the time. Drs. Barbash, Senseman, Darrall, Stewart, Shivers and Wescott will present the program at the next meeting.

Dr. Silvers brought to the attention of the society the fact that this June will mark the Fiftieth Anniversary of the Atlantic County Medical Society and that he thought it would be fitting for a special meeting to be held in commemoration of the event. He has appointed a committee to formulate a program, tentatively and the next meeting date, May 9, has been selected because the State Society meets here in June. It was thought to hold some meeting where it would be possible for the members and their wives and friends, and some out-of-town guests to come together. There would naturally be some expense to an affair of this sort and the society would take care of the guests and the music, leaving only the bare cost of the dinner to the individual members.

Dr. S. Barbash was appointed Chairman of the Committee, with Drs. Davidson, Scanlon and Andrews as aides, and Dr. Barbash stated that they thought a dinner-dance and card-party would be arranged, with about one-half to three-quarters of an hour in speeches, and since it will be an historical event to have some notice taken of this in the talks. State Society President McBride will be asked to talk to the meeting, and also the Presidents of different clubs of Atlantic City and County. The speeches will be broadcast over W. P. G.

Dr. Philip Marvel, the oldest member of the society, and Vice-Chancellor Ingersoll, the son of one of the Charter Members, will be asked to talk at the dinner. The Woman's Auxiliary will be asked to assist in putting the affair over.

It was voted that the President appoint a committee to arrange for such an affair to be held at the Chalfonte Hotel in view of the very courteous manner in which it has always taken care of the society.

At this point Dr. Silvers introduced Dr. Clyde Collings, Chief of the Urologic Clinic of Bellevue Hospital, New York City, who read a paper on "Modern Methods in Urologic Surgery". Dr. Collings spoke in part as follows:

The most common complaint of patients with kidney stones is loin pain; 80% of patients with nephrolithiasis entering Bellevue Hospital during the past 7 years sought relief from this type of pain. It is often described as a dull ache; at times sharp and lancinating. It may be referred to the costovertebral angle, under the costal arch or sometimes down the ureter. Nausea, vomiting and chills, accompanied by hematuria, may also be present. A plain roentgenogram of the entire genito-urinary tract shows any shadow-casting stone in or about the kidney. As a rule red blood

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held April 11, 1930, at the Chalfonte Hotel, Dr. H. I. Silvers, President, in the chair. Minutes of the March meeting were read and approved.

Dr. Scanlon reported that the application of Dr. Marcus Magill had been approved by the Board of Censors, and a motion was carried that Dr. Magill be accepted for membership in the society.

Dr. W. B. Stewart, of the Public Health and Sanitation Committee, reported that the State Board of Medical Examiners had brought suit against a number of people who have been practicing in this county contrary to the law and have secured convictions against some of these. He also stated that he had received a communication from Mayor Ruffin in regard to some electric appliance being advertised over W.P.G. with a health talk preceding mention of the article. He stated that

cells are found in the urine, microscopically. Cystoscopic examination reveals a decreased function on the involved side. An x-ray catheter with wax bulb on the end, is passed to the kidney pelvis. Stereoscopic pictures at this point may show the catheters touching the stone. A pyelogram will show the pyelographic medium surrounding the stone and determine the amount of kidney parenchyma destruction. The ureter specimen indicates the amount of pus, bacteria and urea present, on the involved side. The wax bulb is examined for a stone scratch. Kidney stones casting a shadow of 1 cm. or more in diameter will probably never pass spontaneously down the ureter.

Pyelotomy is preferable to nephrotomy. When the kidney tissue is incised infection and hemorrhage often result. Particularly secondary bleeding 5 or 10 days after operation. One is often greatly surprised at the size of stone that can be removed through a pyelotomy incision. If necessary, a small cut is extended into the parenchyma, and closed later with superficial sutures through the kidney capsule. Pyelotomy incisions are usually left wide open, and heal in a few days. If the cut is long, one superficial stitch draws the cut edges together. A cigarette drain is left in the loin for 3-4 days.

TUBERCULOSIS OF KIDNEY

Most patients with renal tuberculosis complain chiefly of burning urination and frequency. At times there may be gross hematuria as an initial symptom. Loin pains are usually slight and are often spoken of as a mere discomfort. The urine has a milky, pussy appearance and contains many clumps of pus cells, and red cells. Tubercle bacilli are usually found in the catheterized bladder specimen. A radiograph of the urologic tract is negative for shadows. Cystoscopy shows a generalized cystitis, the ureter orifice on the involved side being edematous, ulcerated, or of the golf-hole type. At times miliary tubercles are seen around the ureter orifice. Pus may sometimes be seen worming its way out of the orifice. Decreased function, as evidenced by the dye and urea tests is noted. Catheterization of the ureter may be difficult on account of a tuberculous stricture. If the picture of renal tuberculosis is not clear, sodium iodide injected into the kidney pelvis does very little if any harm, and the size and position of the tuberculous cavities can then be outlined. The ureter specimen is examined for pus, blood, urea and tubercle bacilli. Inoculation of a guinea-pig with the catheterized urine is almost routine. It is highly important to prove that the good kidney is uninfected.

The treatment for renal tuberculosis is nephrectomy, and the operation should be performed without delay. "Remove the thorn in infected side before it sticks the other side." I, personally, do not know of any tuberculous kidney healing by medical treatment, but we all have patients well and free from symptoms years after nephrectomy for tuberculosis.

KIDNEY TUMOR

Sudden, spontaneous hematuria with clots, with or without ureteral colic, is often the first symptom of renal neoplasm. In fact, the clots may completely block the bladder neck and the patient have an acute complete retention of urine. After irrigation of the bladder blood may be seen issuing from the ureter orifice, by cystoscopic examination. If possible, do a functional test to make

sure the patient has a kidney on the opposite side. The pyelogram shows an irregular filling defect due to tumor encroachment on the calyces and kidney pelvis. A tumor mass may at times be felt in the loin. The treatment is nephrectomy, removing the perirenal fat en masse. Postoperative radiation is carried out at the Memorial Hospital.

URETER STONE

When a kidney stone moves into the ureter marked ureteral colic occurs. In a series of 23 patients operated upon for ureteral calculi in Bellevue Hospital during the past 6 years, all had pain in the kidney region, a majority had pain referred down the ureter to the groin or testicle and at times the tip of the penis. The cause of the pain is blockage of the passage of urine with resulting distension of the ureter and kidney pelvis. Nausea, vomiting, at times chills and fever is present. Microscopically the urine is often smoky. The finding of red blood cells microscopically is all important. At cystoscopy a stone may be seen sticking out of the ureter orifice. The function test was decreased in 14 out of 15 of our patients. An x-ray ureteral catheter with a wax bulb is passed by the obstruction if possible. Stereoscopic plates are taken at this point; one can definitely determine whether the stone and catheter are in apposition. A pyelogram is made to show the extent of dilatation of the kidney pelvis. If the catheter can not be made to pass the stone, a ureterogram shows the sodium iodide going to the stone and partially surrounding it.

Most ureteral stones may be made to pass without operation, by ureteral dilatation and manipulation. The indications for operation are: all stones casting shadows 1 cm. or more in diameter will probably require operation; decreasing function and most particularly anuria; increasing infection and persistent pain. A high ureterotomy, as in the kidney approach, is the operation of choice. A low incision, after the manner of Gibson, is at times necessary. The ureter incision is rarely sutured. There were no untoward complications or deaths in this series.

STRICTURE OF THE URETER

A stricture of the ureter may be defined as a narrowing of its lumen by scar tissue. The cause of the scar may be focal infection or traumatism. The diagnosis is made by passing a wax bulb, size 10, 11, or 12 French, by the obstruction and obtaining a "hang" upon withdrawal. The pyelo-ureterogram shows a dilatation above the narrowed portion, with usually some dilatation below. There is often a slight hydronephrosis present. The symptoms are those of ureteral colic. But the acid test is, in relieving the patient of his ureteral symptoms by dilatation every 3 to 6 months; the patient goes so long, has mild ureteral pain, is then dilated and relieved for several months. But these patients are rather few and far between. I have only 2 such definite cases proved, treated and relieved over a period of years. I imagine there are a number of patients being stretched for alleged strictures that do not exist.

BLADDER TUMORS

The first, last and possibly only symptom of vesical neoplasm is hematuria. A minority consult the physician for frequency and burning. When the tumor is near the bladder neck, a ball-valve action may produce intermittent stoppage during urination. As in renal neoplasm, clots may produce acute retention. Clinically, we rec-

ognize 2 general types of bladder tumor by cystoscopic examination. One type, projecting into the cavity of the bladder, known as the papilloma; the other, growing into the bladder wall, the so-called "infiltrating" tumor. The papillomas are mildly malignant, while the infiltrating type are highly malignant. The true papilloma has a narrow base, an elongated pedicle, and is only slightly adherent to the bladder mucous membrane; the infiltrating carcinoma has a broad base, only slightly raised above the bladder mucous membrane and the depth of tumor penetration into the bladder wall can not be determined by the cystoscopic eye.

The papilloma is treated through the cystourethroscope by high frequency excision and coagulation. When accessible, the tumor pedicle is cut across by a knife-like electrode and the base coagulated. If the pedicle can not be seen, the main body of the tumor is coagulated. With the "electrotome" apparatus, most papillomas can be entirely destroyed in 1 or 2 sittings. With the old type high frequency, it often took 4 or 5 cystoscopic fulgurations. The patient is cystoscoped every 3 to 6 months to check up on recurrences.

The infiltrating tumor is best treated by an operation—a suprapubic cystotomy. When the tumor occupies the dome or accessible portion of the lateral wall, the new growth is widely excised by a cutting electrode. The lymphatics and blood-vessels are thereby sealed beyond the tumor mass, reducing the chance of recurrence to a minimum. If the tumor occupies the base of the bladder, or bladder neck, the carcinoma is destroyed through the open bladder by high frequency coagulation. Radium seeds 1-2 cm. each are implanted in the tumor base 1 cm. apart. In this location the cancer is very difficult to exterminate. If the growth can be kept under control for several years, the result is considered very satisfactory. Total cystectomy with transplantation of the ureters into the sigmoid is a very formidable procedure, accompanied by a very high operative mortality. My recent work in the department of experimental surgery at New York University, on this operation, suggests that the mortality may be lowered with the newer Coffey technic.

VESICAL CALCULI

Stones in the bladder are often secondary to stones that have passed down the ureter, but may also be secondary to a foreign body pushed in through the urethra. We sometimes find a piece of rubber tubing or wire hair-pin introduced into the bladder during masturbation. An obstruction to the bladder neck or stricture of the urethra may produce residual urine. Infection usually follows. The culture media being perfect the urinary salts are precipitated on a small nidus, and a primary stone in the bladder results.

The symptoms of vesical calculus are frequency (more by day than night) burning, especially at the end of urination, and suprapubic pain at times. There may be a sense of discomfort in the bladder when the patient goes down stairs. The urine is sometimes smoky. The diagnosis is made by the characteristic click when a sound touches the stone, (Calcareous incrustation on a tumor is the only exception). Radiographs show most bladder stones. By cystoscopy, the phosphatic stones are white and the oxalates dark brown.

A litholapaxy is preferable to suprapubic cystotomy. A stone up to 5 or 6 cm. diameter may be easily crushed. The operative mortality after this procedure is almost nil; after the open oper-

ation from 7 to 8% die. Patients with bladder calculi have a more severe grade of pyelonephritis than a patient with residual urine without stones.

For large calculi, and calculi accompanying benign enlargement of the prostate, suprapubic operation is imperative. Patients with a prostatic bar have a litholapaxy first and an excision of the bar through the cysto-urethroscope later.

DIVERTICULUM OF BLADDER

As Keyes states, a diverticulum of the bladder is a pouch of mucous membrane which has pushed through the bladder wall. The musculature of the diverticulum is thinned and sclerosed. Most large diverticula are considered congenital, or at least there is a special predisposition in the weak musculature of the individual. It is generally accepted that patients with a diverticulum have a fibrous contracture of the bladder neck. The symptoms are those of difficult urination, ability to hold a large quantity of urine, and frequency and burning when infection intervenes. The catheter detects a certain amount of residual urine (I operated upon one patient recently with 900 c.c.) Cystoscopic examination reveals the opening of the diverticulum, and a ureteral catheter coils up inside the pouch. A cystogram reveals the size and location. Sodium iodide 2-3 oz. of 5% is injected through a catheter, and a picture taken at several angles. Then the iodide is drained off and 2-3 oz. of air injected as a contrast medium.

Small diverticula of the bladder had best be let alone. Remove the prostatic obstruction and see if retention of urine is not relieved. Large diverticula may be excised through a suprapubic cystotomy. Filling the diverticulum with gauze facilitates freeing from the surrounding structure. At the same time operate upon the sclerotic bladder neck.

PROSTATISM

One of the first symptoms of an enlarged prostate is nocturia. The patient very shortly thereafter notices a day frequency and burning when infection is added to the mounting residual urine. Most of our Bellevue patients carry on with their discomforts until they finally are driven into the hospital with acute complete retention of urine. When it is at all possible, a bilateral vasectomy is performed before instrumentation, to prevent epididymitis.

The diagnosis is made by rectal touch, and cystoscopy when the case is at all doubtful. If there is any change whatever in the reflexes, a spinal tap is done at once. A cystogram indicates the amount of intravesical intrusion. The eternal fight between adherents of the suprapubic and perineal prostatectomies does not particularly concern us. It is rare that we do the perineal. We see too many patients operated upon elsewhere and shipped into Bellevue with urinary incontinence. And we occasionally see a urethrorrectal fistula.

If a patient tolerates an indwelling catheter well, we get him in the best possible shape with 1-2 weeks of pre-operative care and then do a suprapubic cystotomy and remove the prostate all at one time, so-called "one stage operation". If the patient does not tolerate an indwelling catheter we do a suprapubic drainage and wait 10 days or more to remove the prostate.

Everyone is interested in the question "what happens to the prostatic". Every patient admitted to our wards with a diagnosis of enlarged pros-

tate must be included in our statistics; whether operated upon by other surgeons before admission, operated upon or not operated upon by us. The mortality rate for this entire group is 18%.

PROSTATIC CARCINOMA

There is usually much more burning and perineal pain with cancer than with benign enlargement. Contrary to the usual belief, there is more hematuria with benign prostates than with malignant. The metastasis, especially to the shafts of the long bones comes late in the disease. The stony hard, fixed, irregular prostate of carcinoma is often quite easily diagnosed. The growth extends laterally to the pelvic wall and upward to each seminal vesicular region.

The treatment is palliative. The problem resolves itself into freeing the patient of his residual urine and attempting to control the tumor growth. If one feels, after urethroscopic examination that there is a carcinomatous bar at the bladder neck, an electric excision will relieve the patient for a time. At the same time radium seeds are implanted into the prostate through the perineum. I have 3 patients who have been treated in this manner and have been fairly comfortable for 6 months to 2 years. But a patient's fate is sealed when you make the diagnosis. Already metastasis has occurred. I think it is a mistake to subject these patients to serious major operations; treat them in some palliative way, relieving their last days of intense suffering.

THE PROSTATIC BAR

When the bladder neck is contracted by fibrous, scar tissue this change may be termed fibrous obstruction. The tight bladder neck obstructs the free outflow of urine and residual urine results. Most authors believe the cause of the fibrosis to be a chronic inflammation of the prostatic gland, leaving scars when healing occurs. However, we see cases in infancy and youth without any previous prostatic infection. Since the days of Bottini, urologists have concerned themselves with a transurethral operation for relieving the small fibrous obstruction. The galvanocautery of Bottini and Chetwood caused severe hemorrhage, as the thick slough separated a week or so later. Incontinence of urine was another complication.

In his book, Keyes states: "Young has given us a urethral punch wherewith to bite out pieces of the bladder neck, and continues to perform this operation undismayed by the profuse hemorrhage that often results. Many operators do a preliminary cystotomy, through which they can guide the bite of the punch, and drain the bladder afterward to take care of the hemorrhage. Like Young, Caulk does his punching without aid of the eye. This is a great disadvantage; as one of the older New York surgeons once said, an ounce of *see*, is worth a ton of *feel*."

Soon after Beer brought out the high frequency current, he fulgurated a median bar. Three weeks later the patient's bladder filled with blood clots. A suprapubic cystotomy controlled the bleeding. A. R. Stevens, Bugbee, and others have fulgurated the fibrous prostate. It requires a number of sittings and hemorrhage sometimes occurs.

SYMPTOMS

The usual symptoms of benign enlargement of the prostate are present in the fibrous type; namely, frequency, burning, urgency, difficulty, at times complete retention, terminal hematuria, pain in the perineum and across the back. In a group of 25 patients in our office practice oper-

ated upon since January, 1929, symptoms of prostatism had been present from a few weeks to 22 years, the average duration 6 years. The youngest was 29, and the oldest 76; 14 had a Neisser infection in youth.

Diagnosis of the fibrous prostate is made by rectal and cysto-urethroscopic examinations. By rectum, the prostate is usually described as small, somewhat irregular, and firm throughout. As the cysto-urethroscope is passed through the bladder neck, depression of the ocular end is required to get over the fibrous bar. A distinct jump is felt as the instrument slips by the obstruction. As the urethroscope is withdrawn into the posterior urethra, the floor of the bladder neck seems to rise like a curtain. Pushing the instrument back toward the bladder a "stone wall" is encountered, the obstruction can only be passed if the ocular is again depressed. Lateral, median and intra-urethral lateral lobes must be looked for and excluded before the following method of operation is employed.

Until a year ago, electric excision of the prostatic bar was performed with a stiff knife-like electrode through the McCarthy panendoscope. Working upon certain suggestions, Reinhold Wappler modified the fore-oblique lens system giving a larger field of vision. Our modification of the McCarthy instrument, for continuous irrigation during operation, has been placed along the telescope of the new instrument. A metal trough along the telescope steadies the electrode, further simplifying the operation.

The operation is preferably performed in a hospital under caudal anesthesia (50 c.c. of 1% novocain). The cysto-urethroscope is passed into the bladder. With the bladder partially distended, and the inflow and outflow of water regulated, the electrode is engaged upon the bar at "6 o'clock". The current is turned on and marked bubbling is noted. The protein molecules are exploded by jostling of the high frequency oscillations. The urethroscope and electrode are slowly pulled back en masse until the *veru montanum* appears. A white furrow about 2 mm. deep is seen. The instrument, with the electrode in the furrow, is then pushed forward and through the bladder neck. Working back and forth in this manner the groove is gradually widened and deepened. Cut until you see the last obstructing fibrous band has been severed. One can, from the *veru*, look down a deep valley (perhaps 1.5 cm. deep) and see the base of the bladder. Persist in your efforts until you are satisfied the patient has a wide-open bladder neck. By turning the knife blade sideways one engages the blade on the bladder neck at "5 o'clock". Cut downward and backward until the intervening tissue is whittled away. This procedure is repeated at "7 o'clock". The operation can be slowly and precisely performed in about 20 minutes. There is only a minimal amount of heat penetration beyond the line of incision. By microscopic examination we have found tissue destruction extends only 1-2 mm. beyond the cut.

Patients with a residuum of 200 c.c. or more before operation, have an indwelling catheter tied in the urethra for a day or so after the excision. As a rule, patients are able to void after removal of the catheter. Try not to pass a catheter post-operatively, as it incites bleeding. Hemorrhage at the time of operation has been unimportant. In about half the cases, blood tinged urine and small clots are passed off and on for the first week or so. Rarely is it necessary to use an indwelling catheter for bleeding. I have never had to per-

form a suprapubic cystotomy to control hemorrhage.

Of the 25 patients operated upon since January, 1929, all but 3 empty their bladders completely. They retain 10, 20 and 30 c.c. respectively. The 10 c.c. patient had 90 c.c. to complete retention before operation; the 20 c.c. patient had 450 c.c. and was catheterizing himself once daily; the 30 c.c. patient had 495 c.c. before operation. The burning and frequency after operation usually lasts, "off and on" for 3 to 6 weeks. A minority experience no burning whatever. Many patients will volunteer the information that the feeling of obstruction is gone—the urine passes freely.

I have operated upon 2 patients with median and slight lateral lobe obstruction. They were elderly patients with diabetes and severe myocarditis upon whom prostatectomy could not be performed. I gave them symptomatic relief. However, 6 other benign enlargement patients were operated upon as test cases of this method, and all required subsequent prostatectomy. Within the past few months I have urethroscoped my first patient operated upon in 1923. The deep furrow in the bladder neck is apparently as wide open as the day of operation. He empties his bladder completely and is free from symptoms.

DISCUSSION

Dr. Shivers: I certainly have enjoyed Dr. Collings' paper in which he has in a very short time rather thoroughly covered the subject of surgical conditions of the genito-urinary tract.

It is extremely important in cases of infection of the lower urinary tract to investigate the upper portion; but to do so without the use of x-rays leaves the examination incomplete. Collect urine for microscopic examination and culture. You cannot always tell the cause of obstruction or the degree of dilatation beyond it; cannot tell whether trouble is present in the upper kidney pelvis; cannot tell whether there is definite destruction or other forms of disease. It is important to always be prepared to carry out thoroughly and completely a study of the upper tract, for patients with simple cystitis, with no symptoms referable to the upper tract, may when cystoscoped show a tuberculous kidney or sometimes a stone.

It is also important to eliminate bladder tumor, the earliest and most pronounced symptom of which is hematuria. A woman about 55 came to me for bladder treatment. She had pus in the urine. I treated her bladder and the clinical symptoms improved rapidly but pus remained in the urine. She was cystoscoped and we expected to find an infection of the upper tract, but found a tumor on the posterior wall of the bladder giving the appearance of an adenocarcinoma secondary to carcinoma of the intestine or uterus.

Dr. Collings has given you the treatment of tumors and emphasized the fact that carcinomas of the base of the bladder are best let alone. Severe hemorrhages appear to stop with fulguration and the insertion of radium. The patient wears the tube and it drains into a bag attached to the side of the leg. It is necessary to change the tube only once or twice a week.

Dr. W. Blair Stewart: Speaking from the standpoint of an internist, and not a surgeon, almost everyone of these cases comes to us first. We are the ones who are thrown in contact with the patient and upon us rests the responsibility for making a definite study and diagnosis, for allowing the condition to drift along until it gets beyond the point where a surgeon can go.

In the male patient, how many of us practicing internal medicine neglect to make any proper examination of the prostate gland itself. It is really wonderful, the number of troubles that can be cleared in our office routine if we devote sufficient attention to this gland. I would caution the internist, when a patient comes in with urinary symptoms, to look him over carefully, and not treat him lightly for 3-5 weeks with no results, for the patient then goes to some man who will take care of him properly and we are left, in the eyes of that patient, incompetents.

Dr. Silvers: When these cases come into the hospital pre-operative care is not only *desirable* but I think that it makes for the good of the patient. There are 2 things gained. First, the patient is active in the vast majority of cases and becomes accustomed to being in bed and in the position he will occupy for sometime; second in importance is preparation of the patient so that he will be able to stand the operation. There is no question but what careful consideration before operation, being sure of renal function and that the general condition is up-to-par will make not only for actual recovery but for a smoother recovery in all instances.

Dr. Scanlon: In line with Dr. Stewart's remarks, I had a relative with pleurisy, which did not get better and a year later he developed a jaundice which was due to an acute cholangitis. That condition passed away and he still was not better. He came into the office having pleurisy, inflammation of the gall-bladder and still sick with pain in right side. He passed urine and it contained red blood cells, seen under the microscope but not macroscopically. Two large stones were found by x-rays. He had been going along for 7 or 8 years, without anyone suspecting these large stones, one in the upper pole and 1 in the lower. The kidney was removed, the urinary fistula sewed up and he is now a well man. I believe if urinalysis had been done at first his true condition might have been discovered then, but none had ever been made.

Atlantic City Hospital

Joseph H. Marcus, Secretary

The General Staff meeting was held Friday evening, March 28. Meeting called to order by the President, David B. Allman.

Dr. A. G. Merendino, Resident Physician, reported the following case of "Buerger's disease": It is said that amputation for ischemia, even gangrene, in cases of thrombo-angiitis obliterans is only justifiable after first trying conservative methods, but may be inevitable. Surgeons are becoming more and more conservative in this regard, although the patient often pleads for amputation to obtain relief from pain. The case that I am reporting is one which presented itself at a fairly early stage of tissue destruction and one in which several conservative surgical procedures failed to relieve the patient, amputation being inevitable.

S. M., aged 42, male, white, with chief complaint pain in the right great toe, in the calves of both legs, and in the dorsa of both feet on walking. Personal history negative with the exception of having had a chancre in 1909 and gonorrhea in 1927. He was a heavy user of tobacco. Began about 2 years ago when he noticed vague pains in his right great toe. In short time the toe began to swell, becoming very sensitive to touch and movement. He neglected his condition outside of

applying cold applications. Three weeks before admission into the hospital, the pain became irresistible; the toe assumed a bluish-red appearance and was just beginning to break down. Was admitted to the hospital September 27, 1929.

The toe was bluish-red in color and edematous; hot to touch and very painful on movement and manipulation; no discharge present but there was induration; dorsalis pedis artery could be faintly felt. Diagnosis of infection was made and on the day following admission the toe was curetted; 4 days later, was discharged apparently relieved. It should be mentioned at this time the Wassermann test and blood chemistry were negative.

Two weeks later he returned to the hospital complaining of pain in the same toe, and a persistent discharge. Radiograph showed what appeared to be an area of osteomyelitis at the tip of the terminal phalanx. Amputation of the toe was performed, the diagnosis of gangrene of the toe having been made. As the foot was dressed each day it was noted that the wound flaps were becoming gangrenous and that there was considerable sloughing. As yet the pain was persistent. Twenty days later a metatarsalectomy was done and the diagnosis of Buerger's disease was made. The wound was left open with the hope that it would fill in with granulation tissue. A piece of blood-vessel was dissected away and sent to the laboratory for histologic study. The report came back that: "The sections show a tremendous thickening, involving all the coats, due to marked hyperplasia. Sections across the vessel show the lumen almost occluded but canalized. The picture is typical of an advanced degree of sclerosis."

As time went on the wound did not seem to be making any headway toward healing. Some granulation tissue did appear but was unhealthy. Dr. Taggart informed the patient and an amputation above the knee was done, on December 3, 1929. Thrombo-angiitis obliterans existed just distal to the bifurcation of the popliteal artery. The patient made an uneventful recovery and was discharged. As for special drug therapy in this case, 2% sodium citrate was given intravenously every 2 days, over a period of 18 days and then discontinued because of the reaction; severe chills following each injection. Diathermy was also given a trial in this case.

Dr. Thomas D. Taggart, Chief of the Surgical Service, reported a case of "Bronchial Abscess with Fistula; Osteomyelitis of the Rib".

Patient, R. C., female, 8 years of age, admitted January 23, 1929, with lobar pneumonia, right lower lobe. One week later the temperature was normal, and breath sounds diminished over the pathologic area. During the following month the temperature was slightly elevated, general condition good, physical signs denoted flatness. An exploratory puncture was performed, no pus obtained. April 4, temperature during the past month fluctuated in the vicinity of 100° with no complaints. At this time the salient physical signs were as follows: Right lung, below the third interspace anteriorly and below the middle of the scapula posteriorly, marked dullness on percussion with accompanying suppression of breath sounds; occasional fine moist râles heard in the upper border of the lesion posteriorly. An exploratory puncture was recommended. A small amount of thick yellow pus obtained. Temperature 102° the following day. A thoracotomy of the right chest was performed and a large amount of thick yellow pus was obtained from which the pneumococcus was isolated. An in-

sufficient amount of drainage was afforded by this means and as the general condition did not show sufficiently marked improvement, a rib resection was performed removing part of the sixth rib; the sequence was uneventful. A month later, May 12, the tube was completely removed and the wound closed.

Drainage was again instituted because of accumulation of another pocket of pus. Following the second drainage the child appeared very much brighter and the temperature showed marked reduction. On August 2, the patient was discharged with instruction to report to the outpatient department. On December 2, the patient was readmitted because of coughing and admixture of blood with a slight purulent discharge from the fistula which formed in the site of the previous operation. A two-stage operation was performed January 25, 1930. The first stage was the resection of 4 in. of the seventh rib with removal of bone which was the seat of an osteomyelitis. The object of this operation was to institute freer drainage of the abscess and remove the source of osteomyelitis; bronchial fistula was curetted, the skin sutured to the drainage tube in situ. On February 10, the patient was feeling in splendid condition and showed a slight serous discharge with evidence of an unclosed bronchial fistula. The following day the old incision was reopened, ribs spread to obtain better exposure; the bronchial fistula was large enough to admit the tip of the little finger. A circular incision about ½ in. diameter was made through the thickened pleura, which was dissected back to and around the bronchus; this flap of pleura was overlapped and sewn to the bronchial fistula, muscles and skin closed; the patient made an uneventful recovery and was discharged Mar. 4, 1930. During these operative procedures and in the intervals of her stay in the hospital she demonstrated a marked anemia but with the continued surgical treatment directed solely to removal of foci of infection and free drainage the red cell count and hemoglobin increased gradually so that at the time of discharge the red count totaled 3,800,000 and the hemoglobin 75%.

This patient was presented in person and demonstrated a state of well being both in outward appearance and in physical signs. In order to correct the posture caused by the chronic empyema a brace was employed to correct the deformity. This brace was discontinued at the time of discharge.

Dr. E. V. Johnson reported the service of Dr. Taggart for October 1929, to January 1930.

A complete resumé of the fatalities involving operative and nonoperative cases was presented emphasizing the cause of death and involving circumstances. The postoperative deaths included injuries; ruptured ulcer; diabetic gangrene; edema of the larynx.

(1) There were 30 operations for appendicitis, and 12 of these ruptured (40%). There was not a death in this list.

(2) There was 1 case of chronic jaundice associated with subacute pancreatitis and gallstones.

(3) Intestinal obstruction 4 cases due to strangulated hernia, all recovered; all were done under spinal anesthesia.

(4) We had 2 cases that required emergency trachotomy; an operation that we are called upon very seldom now to perform.

(5) There were 17 cases of fractures of the femur.

(6) There were 2 cases of gastro-enteritis admitted; 1 sent in for acute appendicitis and the other for intestinal obstruction; neither was operated upon.

(7) There were 36 "head cases" admitted and 12 had fractures of the skull, verified either by x-rays or autopsy.

(8) There were 2 cases of fractured vertebra admitted and neither presented any peripheral paralyses.

Before concluding this report, we wish to make a few remarks about fractures of the skull and intracranial injuries and the prevention of post-trauma sequela. We had not originally intended including this in our report tonight, but in view of the recent discourse at the Atlantic County Medical Society meeting by Dr. Fay, we feel that there are a few points that need clearing up. We are in absolute consonance with the views held by Dr. Fay. We have been using practically the same ideas, if not as energetically, as he does. For the past 2 services we have used spinal punctures, with estimation of the spinal pressure, and drainage in all cases showing a reading of 10 mm. Hg or more. We have also repeatedly drained the spinal canal until bloody fluid has become clear. We have also used glucose intravenously, when indicated. We do not, however, do a spinal puncture or give glucose for the trivial types of concussion; i.e., those regaining consciousness within 5 minutes or so.

We still believe that there are some cases in which operation is required. There are 4 indications for operating: (1) We operate upon all compound fractures as soon as recovered from shock; (2) for extradural hemorrhage; (3) for depressed fractures, but not necessarily as an emergency measure; (4) for increased intracranial pressure, as recorded by spinal manometer, and as shown by examination when spinal drainage and glucose fail to constantly keep the spinal fluid pressure below 15 mm. Hg.

There is another type of case in which we do not bother about the preliminary treatment with glucose and spinal drainage, and that is the type that shows on admission the classical signs of compression; that is, slow pulse, elevated blood pressure, slow stertorous respirations and elevated spinal fluid pressure. This type we operate upon as an urgent emergency. The physiology of the circulation of the spinal fluid and the physiology of chemotherapy, as outlined by him is one of the beautiful examples of practical application of theory, which can actually be proved in practice. We wholeheartedly endorse all he had to say along this line and we also believe that Dr. Fay feels the same way we do with regard to the 4 indications for operation.

In conclusion Dr. Johnson exhibited 2 patients; 1 had fracture of the vertebra and the other, fracture and dislocation of the cervical vertebra; the latter patient was wearing a head brace.

DISCUSSIONS

Dr. Johnson: In the patient with Buerger's disease, the removal of the metatarsal bone showed the artery to be filled with a material which had the consistency of a fibrous cord. The tissues were extremely dry so drainage was not instituted at the site of operation. Healing occurred without any complication.

Dr. Taggart: Incomplete and sectional operations in cases of Buerger's disease as removal of the toe are contraindicated. As a rule, in these cases the leg should be amputated above the

knee (done in this case) as in consecutive amputations commencing with removal of the toe the sequence of events as a rule is unsatisfactory.

Dr. Irvin: Regarding the osteomyelitis of the rib in the patient with chronic empyema with fistula, she was readmitted due to the coughing of blood and in addition the fistula exuded a mixture of blood and pus.

Dr. Darnall: In Buerger's disease persistency of treatment and careful daily observation are essential in the guidance as to the surgical procedure which should not be delayed when indications are present; ultimate results are to be obtained by radical amputation.

Dr. W. B. Stewart: In the case of chronic empyema with rib resection the anemia present in the earlier stages was rather marked and despite the fact that transfusion was not performed the anemia improved with clearing up of the condition.

Dr. Allman: This same patient was sent to the Betty Bacharach Home where a continuance of hygienic treatment followed. This embodies an essential form of after-treatment in any chronic surgical condition.

Dr. Silvers: In treating stricture of the rectum with carbon monoxide snow it is essential that no existing inflammation be present at the time of treatment.

Dr. Andrews: In head injuries we should stress the importance of neurologic interpretation which not infrequently influences the surgical procedure.

Dr. Cole Davis: Operation on depressed fractures showing shock is indicated and not leave the patient alone for several days before instituting surgical procedure. In this way we not infrequently avoid brain destruction with subsequent epilepsy.

Dr. Scanlan: Eminent brain surgeons question the advisability of spinal drainage with the intravenous use of glucose in head injuries. Properly timed surgical intervention in both compound and depressed fractures is of marked importance. Repeated spinal drainage seems to offer only temporary relief.

Dr. Taggart: It is important to have neurologic examinations in head injuries with a thorough recording of the findings of the neurologist and roentgenographic interpretation of the injury. In cases of head injury, spinal puncture for reduction of cerebellar tension is performed every day or every second day as indicated. The judicious use of 50% magnesium sulphate for dehydration is of value and also the limited intake of fluids in these cases. Those in whom the residual symptoms are more prominent are those patients who suffer from severe concussion, remaining unconscious for a brief period of time; the careful analysis and watching of trivial head injuries should consistently be kept in mind.

Dr. Johnson: In ruptured ulcers alkalosis is an important consideration as most of these cases in 5 to 6 days following operation commence to slowly disintegrate and despite treatment death ensues. Postmortems frequently disclose no definite cause of death but there is no doubt some severe metabolic disorder supervenes.

Considering spinal anesthesia in diabetes several phases must be taken into consideration. It is advisable when the patient is in poor condition, as no protoplasmic damage is done to the kidneys, heart, lungs and liver. There is complete elimination of shock; it is possible to con-

tinue feeding patients except perhaps for the meal shortly following operation. The effect of the anesthesia is eliminated in a relatively brief space of time.

BERGEN COUNTY

Dr. Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at the Englewood Hospital, Tuesday evening, April 8, Dr. E. W. Clarke presiding. After reading of the minutes it was decided to hold the Scientific Program before continuing with the business meeting.

The Symposium on Gynecology was opened by Dr. Thomas B. Protzman, of Englewood, who spoke on the "Treatment of Endocervicitis with Diathermy". His paper was discussed by Drs. Whitman, Jukofsky and Snedecor.

Next was a paper on "Some Gynecologic Conditions in Which the Use of Radium Is Indicated", by Dr. Conde de S. Pallen. He discussed 3 conditions in which irradiation, using x-rays or radium may be successfully employed: (1) Idiopathic or functional uterine bleeding; (2) Fibromyomas of the uterus. (3) Carcinoma of the uterine cervix. The method of treatment was described for each group of cases.

The next paper was by Dr. David Corn on "Uterine Hemorrhage; Cause and Treatment". Three groups were here also considered; i. e., menorrhagia, metrorrhagia and a combination of the two conditions.

Then the Chairman introduced Dr. M. A. Goldberger, of New York City, whose subject was "The Female Sex Hormone". His paper was a report of some original work done at the Mt. Sinai Hospital, which will appear in an early issue of the Journal. The talk was illustrated by lantern slides and was very well received.

After a general discussion the meeting was adjourned to the nurses' Dining Hall, where a collation was served.

CAMDEN COUNTY

R. S. Gamon, M.D., Reporter

The regular meeting of the Camden County Medical Society was held in Cooper Hospital, Camden, April 8, at 9 p. m.; Dr. J. L. VanSciver, President, was in the chair. Following reading of the minutes of the previous meeting the Scientific Program was presented by the members of the Cooper Hospital Staff.

The first case was presented by Dr. E. G. Hummel, from the children's service. The case was one of Hodgkin's disease and was given with a laboratory differential diagnosis and lantern slides. The microscopic findings were presented by Dr. Coxen of the Resident Staff. Dr. David Farley discussed the laboratory findings and Dr. Hyman Goldstein discussed etiology and treatment.

"Multiple Osteomyelitis", in a child 19 months old was presented by Dr. I. E. Diebert. The case presented an unusual feature in the fact that they were unable to get a positive blood culture at any time in spite of repeated attempts. Etiology in the case was supposed to have been from a bilateral otitis media. Treatment was by the Orr method. The paper was discussed by Drs. David Farley and B. F. Buzby, the latter stressing use of the Orr method in the treatment of both chronic and acute osteomyelitis.

The third case was presented by Dr. Carlander, from the Orthopedic Service—"Tuberculosis of the Spine", in a child 4 years old. Differential diagnosis and use of the Bradford frame in treatment was emphasized by the speaker. Lantern slides illustrating pathology in the spine were shown. A case of "Dyschondroplasia" was also shown by Dr. Carlander. Discussion by Dr. Martin Collier on the preventive factors in bone tuberculosis in children, and by Dr. B. F. Buzby on the necessity for prolonged treatment and after-care in cases of tuberculosis of the spine.

Dr. A. H. Lippincott presented a case of "Recurring Vesical Calculus", from the Urologic Service. The paper was well illustrated by lantern slides and schematic drawings.

Dr. A. S. Ross presented a case of "Traumatic Rupture of the Spleen", from the Surgical Service. The diagnosis of internal hemorrhage and pre-operative diagnosis of ruptured spleen were brought out by the essayist. Secondary anemia following removal of the spleen was illustrated by a blood count 3 months after recovery. The patient was presented and the incisional scar was demonstrated to the Society. Drs. P. M. McCray, I. E. Diebert, J. B. Morrison and R. S. Gamon discussed the case.

Dr. P. M. McCray, Chief of Staff, presented a case of "Diaphragmatic Hernia" following trauma and with operative recovery. The use of spinal anesthesia and section of the phrenic nerve on the side involved were considered the chief factors in relieving the usual difficulties in such operations. The report was illustrated with lantern slides of the hernia prior to operation, showing the barium meal in the stomach high in the pleural cavity, and subsequent slides showing repair of the diaphragm with the stomach in normal position. The patient was shown following presentation of the paper.

Dr. Thomas B. Lee gave a paper and 2 case reports of "Acute Salpingitis". Differential diagnosis and the necessity for prolonged treatment were emphasized. Dr. J. B. Morrison discussed this paper with particular reference to the sane treatment of salpingitis as advocated today.

Dr. David L. Farley, pathologist, presented a paper on "An Improved Differential Blood Count". Lantern slides were used in illustrating the "Band type" of leukocytes. The speaker emphasized the fact that his paper was particularly an effort to establish the normal of the "Band type" cell from which could be based a study of abnormal types. Discussion and questions were given by Drs. Casselman, Goldstein, Lee and Davis.

The final report was presented by Dr. J. S. Shipman, from the Eye Service—"Plastic Repair of a Contracted Eye Socket Following Gun-Shot Wound". The patient was presented illustrating the end-result of the first stage of repair. It showed the possibilities of plastic surgery about the face with particular reference to relief of disfigurement by removal of cicatrix and replacement with skin graft.

Following the scientific program, Dr. Morrison, Secretary of the State Society, spoke at length on the activities of the State Society with particular reference to the Educational Committee and various expenditures entailed in pushing this phase of organization work.

Dr. Newcomb, of Burlington County, was welcomed and gave a report on the activities of the Legislature.

Dr. A. H. Lippincott concluded the discussion by complimenting Drs. Newcomb and Morrison

on the splendid work accomplished by the Educational and Legislative Committees of the State Society during the past year.

Dr. W. K. Browning moved that a committee of 2 members be appointed by the President to represent the County Society in the Annual June Outing of the combined medical societies of Camden County.

A collation was served by the Staff of the Hospital following the meeting.

Drs. Hollinshed and Diverty were guests from Gloucester County. There were 81 members present; the largest attendance recorded by Camden County Medical Society at a Scientific Meeting.

The program of the society calls for 1 meeting each year to be held in a local hospital. The West Jersey Homeopathic Hospital will be host in 1931. Attendance at this meeting has established the fact that what the members want is active clinical programs.

CAPE MAY COUNTY

COUNTIES OF FIFTH DISTRICT

Eugene Way, M.D., Reporter

A meeting of the Fifth Councilor District Components of the Medical Society of New Jersey was held at Woodbine Colony, Woodbine, N. J., on Thursday, April 17, at 11 a. m. with the Medical Society of Cape May County as host of the occasion. Owing to inclement weather, only 50 were in attendance which was less than 1/3 the number expected and provided for. There were from: Atlantic County, 3; Cumberland County, 8; Gloucester County, 6; Cape May County, 13; Salem County, 0; State Medical Society, 1; The "Press", 2; Guests and Visitors, 17; a total of 50.

The meeting was called to order by Dr. Aldrich C. Crowe, Councilor of the District, who introduced Dr. Millard Cryder, President of the Cape May County Medical Society as Chairman of the meeting. An Address of Welcome was given by John A. Tinsley, Superintendent of Woodbine Colony. The following program was then carried out: Greetings from the Atlantic County Medical Society by Dr. Homer I. Silvers, President. Salutations from the Cumberland County Medical Society by Dr. E. H. Van Deusen, President. Good Will Message from the Gloucester County Medical Society by Dr. Duncan Campbell, President.

Address by W. J. Ellis, Commissioner of Department of Institutions and Agencies.

Address by Professor E. R. Johnstone, Director of Vineland Training School, Vineland, N. J.

Address by Dr. Earl R. Fuller of the Mental Hygiene Clinic, Greystone Park, N. J.

Address "Epilepsy as a Mental Hygiene Problem" by Dr. Alfred Gordon, Philadelphia, Pa.

Address by Dr. Henry O. Reik, Executive Secretary of State Medical Society.

Dinner was followed by an inspection tour of Woodbine Colony and Hospital.

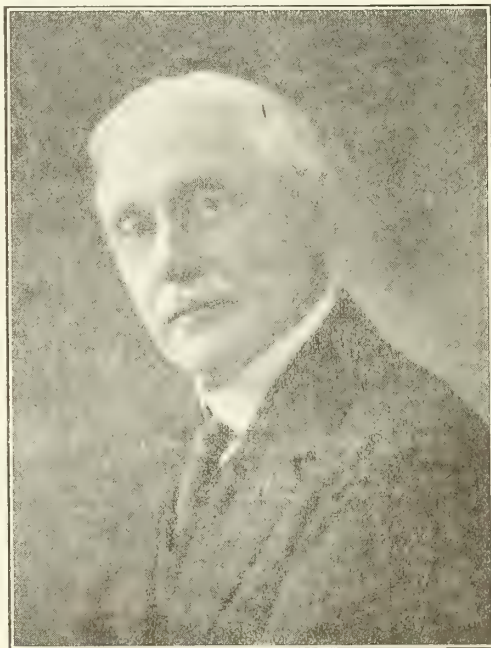
The addresses were all high-class, instructive and educational; Dr. Gordon's superb address being illustrated by lantern slides and the exhibition of several types of epileptics. The meeting was so highly successful that Dr. Reik stated that the Officers of the State Medical Society will recommend the holding of similar meetings by the other Districts of the State. The beautiful new dormitory of the Colony proved to be an ideal meeting place.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

There was an event of more than ordinary interest in medical and dental circles on Tuesday, April 8, when at a joint session of the Cumberland County Medical Society and the Cumberland County Dental Society there was celebrated the completion of half a century of practice by 2 physicians and the rounding out of 60 years of practice by a dentist.

The 2 physicians are Dr. John H. Moore, of Bridgeton, and Dr. Edwin H. VanDeusen, of Vineland, president of the society. The dentist is another long-time resident of Bridgeton, Dr. O. E. Peck. The felicitations of the society were ex-



DR. EDWIN H. VANDEUSEN

tended to the honor guests at the beginning of a banquet at The Cumberland.

Dr. H. Garret Miller, Millville, presented Dr. Moore with a bouquet of beautiful roses, stating that Dr. Moore was an active member of the society when he joined 31 years ago and that he had been a source of inspiration by his regular attendance, high scientific and literary ability and the observance of the ethics of the profession.

Dr. C. H. Gray, Vineland, presented a similar bouquet to Dr. VanDeusen and referred to him as showing the highest type of citizenship and gracing the medical profession with long years of self-sacrificing labors and high scientific attainments.

A similar bouquet was sent to Dr. T. J. Smith, West Commerce Street, another veteran member of the society, as a reminder of the esteem in which he is held by the members.

Dr. Howard C. Henderson presented the bouquet of the Dental Society to Dr. Peck and congratulated him upon keeping abreast of the times in the advancement of dental practice through 60 years.

Representatives of other societies tendered con-

gratulations: Dr. Clarence Way, for Cape May; Dr. Sommerville, for Salem; and Dr. Ashcraft, for Gloucester. All emphasized the help they had received from the attainments of the honor guests.

The 3 guests responded, expressing their thanks and appreciation for the many kind remarks and also their satisfaction in being able to contribute something to the uplift of the profession and the alleviation of human sufferings.

The committee on the revision of the constitution and by-laws of the Medical Society submitted its report and it was adopted as read.

Each member present was requested to arise and announce his or her name and residence.

Dr. Earl Rice, of Philadelphia, presented for the Dental Society, "Dental Pathology and Its Relationship to the Rest of the Body". He said the history of the growth of dentistry shows that it had its beginning as practiced by barbers and various laymen and included mainly the extraction of teeth. Today it is alive with hope and commands the respect of humanity everywhere. Infected teeth are responsible for many of the focal infections of other parts of the body. He spoke of the danger of removing the pulp of the tooth, which invariably holds a source of infection, and leaving the dead tooth in place. He emphasized the necessity of extracting as few teeth as possible at one time so as to avoid setting free the local poison and thereby causing its concentration in other parts of the body.

Dr. M. K. Mohler, of Philadelphia, discussed the same subject from a medical standpoint.

In the early history of medicine in this country, Dr. Benjamin Rush observed and commented upon the benefits derived from the extraction of decayed teeth. The views of these pioneers were difficult of distribution, owing to but few workers. All focal infections may cause systematic conditions. The fact that long lived people have had teeth is no argument against other people having diseases shortening their lives from the same cause. The poison from such teeth is taken into the system. The germs from 1000 teeth if typed will produce the same germ in joint disease. Dr. Barker says 90 per cent of all kidney, joint, colon and other chronic inflammation are traced to the teeth. An avoidance of these diseased conditions requires stated examinations, emphasizing prevention rather than cure.

Dr. Beardsley, of Philadelphia, cited several striking cases of long standing apparently hopeless diseases that had been cured by the extraction of diseased teeth.

Dr. Morrison, secretary of the State Medical Society, spoke on the mutual relations of the two professions and warned them not to go to sleep alongside of a focal infection.

Dr. Mohler emphasized the use of a mouth wash before all operations, so as not to spread the tooth infection during the period of inability to expectorate.

The Medical Society will meet as guests of Dr. Reba Lloyd at Ivy Manor the second Tuesday in July.

ESSEX COUNTY

Academy of Medicine of Northern New Jersey

E. Le Roy Wood, M.D., Secretary

"Doctors I have met in Fact and Fiction" was the subject of the address delivered by Dr. Wells P. Eagleton before the Academy of Medicine of Northern New Jersey at its regular meeting held

Thursday evening, April 17. The address reviewed medical progress throughout the ages from the earliest Egyptian records to the most recent investigations in the newest of the vast nations, the Soviet Republic. The material was drawn from Dr. Eagleton's experiences and extensive travels, the historic items being prompted by visits to monuments and temples of ancient members of the healing art. Early medical and surgical discoveries were recalled, correlating them with our present day knowledge. Egypt, Greece, and Rome in relation to the physician was portrayed. The early moderns like Ambrose Paré and Charcot, were recalled. Then Dr. Eagleton described his personal knowledge of the modern pioneers such as Cajal, in Madrid, and others in India, Australia and Russia. Stereopticon views were shown illustrating this most interesting talk.

Dr. Erwin Reissman, presided. The minutes of the previous meeting were read by the Secretary, Dr. A. R. Kristeller. The following officers and members were elected: Vice-President, 2 years, Walter B. Mount; Trustees, 5 years, Richard H. Dieffenbach, and William Gauch; Committee on Admission, Donald Miner; Committee on Library, Frederick A. Alling; Fellowship, Raphael Pomeranz, Ralph B. Thomas, and Raymond T. Potter; Officers for Section of Eye, Ear, Nose and Throat: Chairman, J. Wallace Hurff; Secretary, E. LeRoy Wood.

The President then asked the Chairman of the Eye, Ear, Nose and Throat Section, Dr. Frederick J. Wort, to occupy the chair and continue the meeting under the auspices of his section. Dr. Wort introduced Dr. Eagleton.

There was a large attendance which included many ladies.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The Gloucester County Medical Society held its monthly meeting in conjunction with the fifth district of the Medical Society of New Jersey, at the Woodbine Colony, at Woodbine, N. J., April 17.

Those attending from Gloucester County were Drs. Ralph Hollinshed, Duncan Campbell, M. F. Lummis, W. J. Burkett and I. W. Knight.

HUDSON COUNTY

Edward G. Waters, M.D., Reporter

Dr. Lawrison Brown, of Saranac, delivered the paper of the evening at the April meeting of the Hudson County Medical Society. One of the largest attendances of the year was on hand to hear of "The Diagnosis of Pulmonary Tuberculosis".

Dr. Brown spoke at length of history taking, hemoptysis and attacks of pleurisy preceding the onset of other symptoms. He stressed, in particular, careful physical examinations, as by far the greatest asset in making a diagnosis. The diagnosis should be made by examination before a radiograph is made; the latter is then taken to corroborate the diagnosis. Dr. Brown then gave an interesting recitation on the history of Koch's discovery of the tubercle bacillus, with the early skepticism and non-acceptance of the organism as the causative agent of the disease, and later the swing of the pendulum the other way, when every acid-fast spot in a sputum smear was taken by some to mean tuberculous infection. Dr. Brown said that 3 or 4 typical tubercle bacilli found in the sputum smear are required for a positive

diagnosis of infection, followed by reexamination and confirmation some time later. A negative sputum is valueless unless repeated a dozen or more times.

Incidentally, tubercle bacilli in the sputum are no criteria of activity of the lesion, as they may be found with little clinical evidence of infection. Likewise, physical signs, such as a few râles in the upper lobes, and slight blood spitting may be valueless as indicators of activity; but if any of these are accompanied by pulmonary symptoms such as cough, dyspnea, attacks of cyanosis, fever, etc., it is a very important indicator of activity and progress of the disease. Dr. Brown likened the physical signs to the green light on the rail road, and the constitutional signs to the red light—the latter being by far the more important and portentous of trouble. In evaluating the status of the patient, using available data, the important consideration is not what *has happened* but what *is happening*.

Five criteria are of paramount importance in making the diagnosis of pulmonary tuberculosis:

(1) Hemoptysis of 1 oz or more. (2) Pleurisy. (3) Constant fine or coarse râles above the third rib. (4) Parenchymatous lesions as visualized by x-rays. (5) Tubercle bacilli in the sputum. If 1 or more are present, tuberculosis is suspected. If both are present, the diagnosis is positive. Clinically demonstrable, non-active pulmonary tuberculosis is demonstrated by positive x-ray findings in the absence of other symptoms.

Experimentally and actually it has been found that when infection takes place the complement fixation test is positive within a few weeks. The skin test next becomes positive, then the x-ray shadows and physical signs; symptoms become evident in that order.

In summing up, Dr. Brown said that one of the most important diagnostic aids was to keep the disease in the mind. In looking for it, listen after a cough; inquire carefully into the history for opportunity for infection; look for localizing symptoms, and where râles are found in the upper chest and the x-ray picture is corroborative, make a positive diagnosis. When the diagnostic criteria are carefully followed out, there is less than 2% error.

The nominating committee submitted additional names for delegates to fill the places of those elected for one year, and whose terms expire in 1930.

Delegates (3 years): E. S. Pollak, E. Waters, A. Cosgrove, H. J. Perlberg, J. J. Pagliughi, L. C. Lange, C. J. Larkey, R. L. Ballinger.

Alternates: J. Binder, L. F. Harter, H. Benjamin, H. Behrens, J. M. Kolb, A. Kuhlmann, E. Thum, A. Mutter.

Dr. Cosgrove, Chairman of State Society Committee on Post-Graduate Courses, made the following report: He stated that there are 12 post-graduate courses in 8 to 10 centers throughout the state. Hudson County registers 70 subscribers; the finest showing made in the state.

Dinner Committee: Report by Dr. Cassidy, who stated that the dinner is to be held April 26, at No. 1 Fifth Avenue, and that all preparation has been made for a very enjoyable evening.

Clinical Society North Hudson Hospital

J. Africano, M.D., Reporter

The regular monthly meeting was held Tuesday, April 8, with Dr. H. Spalding acting as chairman; 43 physicians were present. The hos-

pital report for March was read by Dr. Tannert: total discharges, 319; deaths, 19, of which 9 were medical, 5 surgical, 2 pediatric and 1 each gynecologic, otologic and urologic.

The following resolution was introduced by Dr. C. De Meritt and seconded by Dr. A. Schulman: That the Medical Council be requested to arrange a scientific program, representative of the North Hudson Hospital, for presentation at a meeting of the Hudson County Medical Society. It was passed unanimously, after some discussion.

Mr. J. S. McConnell, Superintendent, spoke of 3 great needs of the hospital; namely, a new power plant, a nurses' home, and a children's ward and solarium. Wives of physicians, now known as the "Child Aid League of North Hudson Hospital", have signified their intention of sponsoring the financing of the children's ward and solarium, which will cost \$25,000; their first public attempt to raise funds will be a theatre party to be held Monday, May 19, at the Civic Repertory Theatre, W. 14th Street, New York City, and tickets are now being offered.

Dr. Ash discussed in detail a death from bilateral mastoiditis complicated by general encephalitis. A 7-year-old boy was admitted March 8 with history of influenza during the last week of January, and bilateral otitis media about February 9; the right ear-drum rupturing spontaneously and a physician performing myringotomy on the left. The ears discharged a moderate amount of pus, and on March 2 there developed pain in the head, nausea and slight stiffness in the neck, which continued to get worse. Examination showed slight discharge from both ears, ear-drums pale red, no bulging, no visible openings, no sagging of the posterior walls and no mastoid tenderness; the tonsils were moderately enlarged. There were no signs of meningitis except occasional vomiting and headache. Slight tenderness over the colon. Temperature 104.2°; pulse 130; respirations 24. Both ears were reopened. W.B.C. 19,200; polys 87%; blood culture, negative.

On March 13 bilateral simple mastoidectomy was performed, revealing the cortex of both mastoids normal or but slightly sclerotic; a small amount of thick pus and soft bone was found deep between the sinus and the posterior wall, and in the region of the aditus and middle ear of both sides; a small exposure of healthy dura was made in the middle fossa of the left mastoid, pus from there revealing streptococci. Patient appeared better for 3 days, was able to take nourishment and answered questions intelligently, but appeared slightly apathetic. On fifth day developed a mild muttering delirium, with marked rigidity of the neck, positive Kernig and Babinski signs; pupils normal in size, reacted to light, but there appeared to be about 2 diopters of swelling in each optic nerve head. The mastoid wounds appeared healthy with both canals dry. On March 21, meningeal symptoms were more marked, the patient becoming hard to arouse; pupils moderately dilated; slight paralysis of right side of face; and flaccid paralysis of the extremities of the same side with a spastic condition on the left. Spinal puncture was made next day but no fluid obtained; however, after withdrawing the needle 2-3 drops of clear spinal fluid dripped from puncture wound. Pulmonary edema and heart failure developed and the patient died within a few hours.

Dr. Ash stated that the reason for describing this case was to show what can happen when such cases are neglected. In his opinion, if the

patient had been operated upon 12-14 days earlier he would probably have been saved.

Dr. Braunstein described an autopsy performed after a death from pelvic peritonitis following septic endometritis. There was some question of an abortion having been induced. Findings were: thick purulent fluid in the abdominal cavity; peritoneum injected; adhesions between the intestines; appendix 12 cm. long and retrocecal; uterus 6x10 cm. laterally and anteroposteriorly, its myometrium soft and pale, its cavity filled with exudate; microscopic examination of uterus showed complete erosion and replacement of endometrium. The infection most likely traveled from the uterus through the tubes to the peritoneal cavity, ending in fatal peritonitis and septicemia.

From the standpoint of possible prosecution, not only is an antemortem statement necessary, but also the curettings should be saved to prove the existence of pregnancy.

Dr. Klaus stated that he had been inclined toward a diagnosis of appendicitis, the history of induced abortion making him hesitate. On admission, the tenderness was all on the right side; a posterior colpotomy was performed, liberating about 10 oz. pus. Later a huge mass developed in the R. L. Q. and laparotomy was performed, revealing a large localized abscess in the abdomen.

Uremia with Symptoms Simulating Intestinal Obstruction

Dr. Pearlstein

Mrs. M. A., aged 60, was admitted to the hospital, February 25, complaining of vomiting and constipation of 4 days' duration. Because of her serious condition no attempt was made to obtain a complete history. She was vomiting brown stomach contents having a fecal odor, almost continuously; T. 98.6°; P. 100; R. 20; B. P. 144/90. Eyes and pupils normal. Heart sounds distant, regular in rate and rhythm, no murmurs. Abdomen slightly distended, no rigidity; some tenderness in the left lower quadrant, with a sense of resistance. Diagnosis of intestinal obstruction was made and patient given 2 enemas, which were not effectual. This was followed by a stomach lavage and then an intravenous, 500 c.c. of 5% glucose, was given.

Next morning the patient did not seem sick enough for a high intestinal obstruction, and the drowsiness which persisted was more than would go with an obstruction of the colon; therefore, suggested chronic uremia as causative factor of the vomiting. Blood chemistry was ordered. Report N.P.N. 150; creatinin 3.5; urine revealed albumin and casts.

On questioning the patient it became known that she was treated for hypertension (205 systolic) and had been on a salt-free and meat-free diet.

The patient received glucose infusions daily with hypodermoclysis. Stomach lavage was repeated. Phlebotomy was done and 600 c.c. blood withdrawn, but to no avail. On the fifth day following administration, the patient had typical uremic facies and died the next day.

Dr. Pearlstein differentiated between high intestinal obstruction and uremia; in nephritis there is an increase in the chlorides of the blood, while they are decreased in obstruction—in this case the chlorides were normal. As a rule, a uremic patient has diarrhea caused by colitis or ulcerations of the bowel and spasm thus results; this patient

would not have lived so long if the disease had been obstruction. *Dr. Lange* saw the patient on the outside and regarded it as a medical case, as abdominal pain and distension was slight and not enough to warrant surgical intervention for obstruction.

Dr. Klaus cited a case with somewhat similar symptom-complex admitted to his service; severe abdominal pain, localized to the L. L. Q., vomiting, distension and no bowel movements for 3 days suggesting intestinal obstruction or diverticulitis; barium enema showed a normal colon; urine contained 10% albumin, many red corpuscles and pus cells. It proved to be an infection of the left kidney with ureteral obstruction.

Dr. Kuhlmann called attention to intravenous use of the chlorides before performing a high jejunostomy, as an important factor in the treatment of intestinal obstruction.

Polycystic Kidney

Dr. S. Braunstein

Polycystic kidney is practically always found to involve both kidneys and is due to failure of proper junction between the distal convoluted tubule and the collecting tubules. These 2 sets of tubules originate from different sources in the embryo and should gradually form a union as growth develops. Failure to form proper union occurs only in a certain number of tubules, and as the urine passes into the tubules which end blindly they become distended, forming retention cysts. The cysts increase in size and may fill the greater part of the abdominal cavity. The mass, by pressure upon the normal kidney tissue, causes degenerative changes and eventually symptoms of renal insufficiency appear. This condition may occur in several members of the same family. Treatment is symptomatic; nephrectomy is rarely permissible because of the bilateral character of the condition. Occasionally pain can be relieved by the simple evacuation of the larger cysts.

Case report: E. K., aged 52, factory hand, admitted March 12, complaining of pain over the kidneys and vomiting. Onset 1 week before admission, with pain in lumbar regions, sharp and lancing in character and radiating to the groin. Had a similar attack 9 months ago, which lasted for 1 week. Micturition neither aggravates nor relieves the pain, but the pain induces frequency. The urine, during an attack, dusty in color but never bloody. Vomiting came almost simultaneously with the pain and gave instant relief but he did not vomit every time he had the pain.

Examination was negative except for the abdomen, which was soft; both kidneys enlarged and nodular, especially the right. Liver and spleen not palpable. Laboratory findings: Hb. 55%; R.B.C., 3,200,000; W.B.C., 14,200; P. 80; L. 20. Wassermann neg. Blood chemistry, Mar. 15: N.P.N. 180; creatinin 9. Mar. 20: 164; creatinin 14. Urine showed albumin but no casts. Mosenthal test showed fixed specific gravity 1.008-1.010. Blood pressure 150/95.

Patient left the hospital with diagnosis of polycystic kidney and chronic uremia.

An Unusual Cyst of the Liver

Dr. Lange

Tumors of the liver may be solid or cystic. Of the cystic tumors, hydatid cysts are most frequent. The simple non-parasitic cysts are rarely found; Moschowitz, in 1906, found only 83 cases had been reported.

Mrs. C., admitted March 1, with the chief complaint of pain in the epigastrium and left hypochondriac region. Similar attack 3 years ago; pneumonia (?) 3 weeks before admission. The pain came on about 10 minutes after ingestion of food and lasted about 30 minutes; griping in character and radiating toward the epigastrium. Occasionally she vomited, with partial relief of the pain. Never jaundiced; no loss of weight. The liver border was 3 fingers breadth below the costal margin. Urine showed 2% albumin and a few hyaline casts. X-rays showed presence of a cyst in the right lobe of the liver. Temp. ranged between 98.4° and 100.4°.

Operation: Stomach, duodenum and gall-bladder appeared normal. Right lobe of the liver contained a tumor mass, located in the middle-third but near the costal surface and attached to the parietal peritoneum. The adhesions were separated and bled freely. At the point of attachment, the surface of the mass appeared like cartilage. Part of this was removed for examination. After partially freeing the liver substance for a short distance over the tumor there was such free bleeding that enucleation was deferred and gauze packing introduced to check bleeding and allow drainage.

Report on the biopsy specimen was: Sections show dense, hyalinized, fibrous connective tissue with areas of edema and round cell invasion; no evidence of tumor formation or hydatid cyst.

DISCUSSION

Dr. S. Africano stated that the tumor was circumscribed, in the right lobe of the liver a little more to the right than would be expected of a gall-bladder visualization; it had a dense border due to calcification and was seen in all roentgenograms of the G. I. series.

Dr. Pearlstein pointed out that the gall-bladder could appear anywhere on the right side of the abdomen, even as low down as the pelvis. He was inclined to regard the mass as a calcified abscess; a gumma does not calcify and would be concomitant with a positive Wassermann.

Dr. D'Acerno believed this to be a chondroma or some other type of connective tissue tumor, possibly due to a fetal inclusion; the probabilities are that it was not a cyst, as shown by its density and lack of fluid contents.

Dr. Lange remarked that this patient still has pain simulating gall-bladder disease, which was present before operation, but of course it is too early to expect a cure, the patient having been operated upon only 3 weeks ago.

Carcinoma of Floor of the Mouth

Dr. Klaus

G. P., aged 38, admitted to hospital Nov. 21, 1929, with history of a rapidly growing tumor of 4 weeks' duration on the left side of the floor of the mouth. Had been an excessive pipe smoker since the age of 17. Denied any venereal infection. Examination revealed a tumor, 1x1½ in., extending from the base of the tongue to within ½ in. of the alveolar process of the jaw. The edges of the tumor were hard and indurated; there was no ulceration but the center of the mass was much softer. No glandular enlargement was noted in the submental or submaxillary glands. Wassermann negative.

Biopsy was done by means of the electrosurgical knife, and specimen was reported by Dr. Braunstein to be a squamous cell carcinoma with

invasion of the sublingual gland. The position of the growth was such that a radical resection of the floor of the mouth was impossible without complete removal of the tongue, since the growth had already invaded the base of that organ; therefore a radical resection of all the glands, including the salivary, of both sides of the neck, together, with an electrosurgical excision of the floor of the mouth and base of the tongue, and implantation of radium was decided upon. In order to keep well beyond the growth it was necessary to remove also a portion of the right side of the floor of the mouth. Fifteen 2 millicurie radon seeds were inserted throughout the operative field.

The operative wound of the neck healed promptly, by primary union, but there was considerable reaction of tissues of the mouth due to the radium. About the second week, there occurred a complete loss of all hair over the upper part of the neck and face, showing the far-reaching effect of the radium. The patient was discharged from the hospital apparently cured and in excellent condition on Jan. 6, 1930. Pathologic examination of the tissue removed showed no metastatic involvement of any of the lymph-glands of the neck. In the follow-up, on Feb. 2, about 2 months after operation, a small shell-like cast of the alveolar process of the lower jaw on the left side had sequestered completely; this resulted from the radium but the teeth remained firm, leaving no disability as a result of this loss of bone. At the present date there is no evidence of any recurrence and he appears in excellent health.

Rickets with Unusual Features

Dr. Eckes

Female child, white, aged 3, was admitted to the hospital March 14, with the following complaints: Peculiar actions, frequent crying, does not talk, diarrhea and urinary incontinence. No history of insanity in the family. This child was a breech delivery and weighed 6 lb. at birth. Teeth first appeared at 8 months. Was bottle fed and given cod-liver oil and orange juice. Had measles at 15 months, following which the left ear discharged for about 5 weeks.

Onset about 2 yr. ago, when parents noticed that the child acted peculiarly; refusing to take solid food; would get out of bed at night and try to choke the younger baby; would steal into the kitchen at night and hide under chairs, etc. Recently the child's legs would give way under her and she has had many falls. Does not talk but occasionally utters a word or so. She has had about 4 semi-liquid stools every day and has been incontinent ever since she was born.

The anterior and posterior fontanels are closed; the head is not rachitic; no craniotabes or osteoporotic spots; epiphyses of the wrists fairly prominent; beading of the ribs, if any, is internal; pot-belly not marked; femurs and tibias markedly curved; dentition not delayed; epiphyses of lower extremities markedly prominent.

X-rays of the knees and wrists show that there is rickets with erosion and absorption of the epiphyses, with marked bowing. On March 14, the blood calcium was 8.4 mgm. and the phosphorus 4.9 mgm. On April 4, the blood calcium went up to 10.2 mgm. Several urine examinations have been negative.

Treatment being carried out consists chiefly of a vegetable, cereal and fruit diet, with cod-liver

oil, $\frac{1}{2}$, 4 times a day and ultraviolet light exposures.

This child cannot be called a mental defective in the broad sense of the term, for she sings, can understand when told to walk or stop, and pays attention to its surroundings and appears to be normal for age in mentality, excepting that she does not talk, which condition is probably due to a faulty or retarded development of the speech center. The apparent jealous trend which this child manifests by attempting to harm a young baby is also unusual.

DISCUSSION

Dr. Niemeyer stated that the deformities of the lower extremities were marked in comparison to the rachitic features of the rest of the body; it is also unusual to see such a localization at the age of 3 but this could be accounted for on the basis of recurrent or late rickets. The element of the ignorant or careless parent must be taken into consideration—who allows a case to proceed to this stage without treatment; however, the prognosis is good. We must differentiate this case from renal and celiac rickets. In the renal type the prominent sign is the "knock-knee", high phosphorous content of the blood, and stippling of the bones (wooly, honey-comb type); these die of uremia and acidosis. In celiac rickets one finds large, voluminous, fatty stools, a low calcium content of the blood, and often tetany. Other differential diagnoses to be made are from other rarer types of rickets, osteomalacia, achondroplasia, osteogenesis imperfecta, congenital syphilis, and scurvy. It is difficult to establish the mental state of the child at this time. In answer to Dr. Tidwell's question concerning the use of viosterol, or irradiated ergosterol, Dr. Niemeyer pointed out that in such a case as that under discussion there might occur the danger of hypercalcification and high phosphorus concentration resulting in alternate spells of kidney irritation, drowsiness and anorexia, and retention of phosphorus and nitrogenous products; 1 mg. viosterol is equivalent to 145 cod-liver oil, hence results would be expected in 1 month as against 6 with cod-liver oil.

Intestinal Tuberculosis

Dr. Eckes

Female child, white, aged 3½ years, admitted March 10. No tuberculosis in the family. Normal delivery at term, weight 7 lb. Breast fed for 1 month and then put on formula. No orange juice until 1 yr. old, because it gave her diarrhea. The same occurred with cod-liver oil, but maltine with cod-liver oil did not disturb her gastro-intestinal tract. First lower incisors at 10-11 months. Diarrhea began at the age of 14 mo., during autumn, lasting about 10 days. During this time she had watery green stools. She was treated and cured. Has had about 5 attacks of diarrhea since then and each attack lasted from 1-4 weeks. It has no relation to season or food. The last time she had diarrhea was in the summer of 1928. Since that time, she has been anemic, lethargic and would sleep quite a bit and lose weight; the reasons for which she was brought to the hospital. Onset of present attack 10 days before admission.

Roentgenogram of chest showed peribronchial thickening. Heart, mediastina and lungs normal. Stool examination report: Pasty feces, without mucus particles, many fatty acid crystals, positive for occult blood, negative for tubercle bacilli,

parasites and ova. Nose and throat culture showed staph. and strep., but no Klebs-Loeffler bacilli.

We regret that this case was not in the hospital for a sufficient length of time to complete the work. The stool report showed occult blood, but this report was not received until 3 days after the child had left the hospital. This finding was an indication for roentgenologic study of the G-I tract or sigmoidoscopic study. A tuberculin test was ordered but patient was taken away before it could be done. We made a diagnosis—*anemia* due to intestinal tuberculosis—for several reasons: namely, the character of the diarrhea, the afternoon rise in temperature, the chlorotic type of anemia, the abdominal distension and the peribronchial thickening.

Recurrent Dislocation of Shoulder

Dr. Kuhlmann

D. S., male, white, aged 40. On Jan. 1, 1928, while pushing a car, the patient dislocated his right shoulder. The shoulder was reduced and arm kept to the side for a period of only 7 days. From trivial causes the shoulder has become dislocated 4 times since, the last on April 6, 1929. Operation on April 10, 1929—Bankart's capsulorraphy. Arm kept in abduction for 1 month and in limited abduction by means of an arm band until 3 months had elapsed.

Three points in the above history I wish to stress. First, the mechanism of the original dislocation was not that of extreme abduction, the commonly invoked cause of dislocation. Secondly, the period of immobilization following reduction was very short. Thirdly, the redislocations occurred as a result of very trivial forces. The treatment of recurrent dislocation of the shoulder has gone through many vicissitudes, indicating that success was not obtained with any method in a satisfactory number of cases. The commonest reason advanced for dislocation of the shoulder is that of extreme abduction, causing a rent in the inferior portion of the capsule by leverage against the acromion. But is this so? I question it. In practically none of my initial dislocations has the abduction been of such degree as to lever the head downward. Moreover, abduction of the arm does not occur in such acts as sneezing and coughing, which are known to be common exciting causes of recurrent dislocation.

Because of these facts I have accepted the etiology advanced by Bankart as to forces producing the original capsular tear and the theory of Sever as to the muscular forces coming into play. The observations of Bankart point to the fact that most dislocations are caused by force transmitted from behind forward while the humerus is directed backward, thus tearing the anterior portion of the capsule from the glenoid margin. Sever maintains that muscular forces come into play and reports good results by shortening of the subscapularis and lengthening of the pectoralis major tendons.

From a consideration of the above facts one can readily see that capsulorraphy in the right place is logical. The trouble has been, in my opinion, that it has never been done in the right place because of insufficient exposure of the glenoid rim and also because of possibly mistaking the opening of the subscapularis bursa as a rent. The place to suture is at the glenoid rim.

The other modes of operation may be classified under 3 heads:

(1) Formation of a ligament or sling to prevent downward migration of the head.

(2) Bony blocks; resection of posterior margin of the glenoid or a bone wedge at anterior margin of glenoid.

(3) Destruction of joint; excision of head of humerus or arthrodesis.

While the operation of capsulorrhaphy with muscle plasty is logical and directed to the exciting causes, it is my belief that the introduction of Henderson's check ligament is much simpler and more certain. Bony blocks seem to be unnecessarily complicated, and destruction of the joint is certainly only to be used as a last resort.

Rupture of Uterus

Dr. Kolb

A white female, aged 27, married 4 years, gravida 2 para 1. Medical and surgical history negative. Normal menstrual history. No miscarriages. Obstetric history: 4 years ago a full term pregnancy terminated by forceps after 24 hr. of labor pains. Baby weighed 8 lb. Uneventful recovery.

Last period on Oct. 15, 1928; felt life at 5 mo.; expectation of confinement July 22; blood pressure always normal; faint trace of albumin in urine at times; vomiting the first 3 months.

Prenatal examination revealed a small undernourished pale individual with poor mental development; eyes and pupils normal. Heart and lungs normal. Breasts atrophic; nipples well developed. Abdomen enlarged with fetus on right side; breech at fundus; fetal head above the symphysis; fetal heart of good quality on right side and below umbilicus; measurements: interspinous 25; intercrestal 28; external conjugate 19; diagonal conjugate 11.5; true conjugate 10; vaginal examination showed a stellate laceration of the cervix and confirmed the cephalic presentation.

Patient entered the hospital on the night of Sept. 10, 1928, suffering from irregular first-stage labor pains. Rectal examination showed the cervix to be 2 fingers dilated and the head engaged. A catheterized specimen of urine was negative. B.P. 130/88. Pains continued throughout the night and the next day. Cervix completely dilated at 8 p. m., Sept. 8. Patient showed signs of exhaustion. Mid-forceps applied at 8.30 under ether anesthesia after artificial rupture of the membranes and a living 8 lb. baby delivered. Placenta delivered by modified Credé method 20 minutes later. Placenta was trefoil in character and appeared intact. Immediate postpartum bleeding moderate. Patient did well until Sept. 15, when she passed several large blood clots and bled profusely. Examination revealed vagina filled with clots of blood and a foreign body in the cervical canal. This was removed with placental forceps and found to be placental tissue. Uterus was then packed, and a clysis and blood transfusion given. Next day the packing was removed. On the eighteenth, the uterus was 9 cm. below the umbilicus. Lochia was sanguineous and abundant. On the twenty-second, patient again bled profusely by vagina. Some placental tissue was removed manually by the intern, who felt some tissue left but could not remove it as it appeared to be attached to the uterus. Blood transfusion again given after packing the uterus. The next day the patient was taken to the operating room and adherent placental tags removed manually. A mass was detected in the uterine cavity; while finger dissection was being done, the posterior wall of the uterus at the level of the internal os gave way and a small rupture of the uterus leading to Douglas' cul-de-sac was discovered. A cigarette

drain was inserted into this opening and the uterus packed with iodoform gauze. Another blood transfusion was given.

Microscopic examination of tissue removed showed placental and cervical tissue. Next day the temp. was 101.8°. Tenderness and distension marked. No bleeding. Packing removed. Slight amount of purulent and sanguineous discharge.

Examination in Feb. 1929, showed normal condition of right adnexa and no complaints from the patient

DISCUSSION

Dr. D'Acerno gave as the cause of the postpartum hemorrhage in this case the presence of either a placenta accreta, or a placenta succurrentata; in placenta accreta the chorionic villi are so interwoven with the musculature of the uterus that when it separates, the myometrium comes along with it. While finger dissection of the portion remaining behind was being accomplished, a rupture occurred in the soft uterus in the region of the cul-de-sac. Dietrich, of the German school, advises hysterectomy once the diagnosis is reasonably suspected from the history of previous pregnancies and the persistent postpartum hemorrhage, but conservative treatment usually results in complete recovery.

Medical Staff Jersey City Hospital

Joseph Binder, M.D., Secretary

The regular monthly meeting of the Medical Staff of the Jersey City Hospital was held on Thursday evening, April 10, at 9 p. m., in the Out-Patient Department of the hospital, with Dr. S. B. Sprague presiding. Those present: Drs. O'Hanlon, Sprague, Binder, Kelly, Doran, Commorato, Herter, Farr, Perkel, Yachnin, Schneekendorf, Christian, Brophy, Gleason, Rundlett, Doody, Braunstein, White, Houghton, Ruvane, Sullivan, Perlberg, Cosgrove, Benjamin, Hasking, Rector and Siegler.

ORTHOPEDIC SERVICE

Dr. R. Doran presented a case of "Recurrent Dislocation of the Shoulder".

Female, 24, admitted with history that for past 2 years, during epileptic seizures, she would dislocate her shoulder, being more prone to do so at her menstrual periods. While under the care of a private physician, she was advised to be operated upon. Operation was done at Christ Hospital; reefing of the capsule. While in the hospital, and before wound was completely healed, she had an epileptic seizure, during which she again dislocated her shoulder. After a 10 day stay in the hospital, was discharged. Patient still had epileptic seizures with recurrence of dislocation each time. On admission to the Jersey City Hospital, x-rays showed an apparently normal shoulder joint. She was operated upon by what is known as *Bone Block*. A piece of bone from the tibia, pencil-shaped peg was placed in an opening drilled in the anterior inferior border of the lip of the scapula, remainder of peg resting between the deltoid and pectoralis major muscles. She remained for 3 weeks, during which time she had 2 epileptic seizures with no recurrence of dislocation. Since being home patient has had no recurrence of dislocation.

Dr. Commorato presented a case of "Tabes Dor-

salis associated with Aneurysm of the Abdominal Aorta". Female, 54, felt perfectly well up to 2 years ago, when she complained of abdominal distress with pain radiating down both extremities. Previous history of 2 miscarriages some years before, and of an operation, abdominal, 14 months ago, because of pain, nausea and vomiting. On admission in March, she gave history of nausea but no vomiting. Upon physical examination there was a palpable thrill over abdominal aorta and on auscultation blowing in character and systolic in time. There were no visible pulsations over this area. Romberg present, knee jerks absent. Blood and spinal Wassermann 4 plus. Patient put on antiluitic treatment.

Dr. Fellman presented a case of "Streptococcic Septicemia, Acute Ulcerative Endocarditis, Post-Partum, with Emboli to Brain and Spleen". Para 6, 42, white, non-clinic. The patient delivered a normal full term female child. There was no laceration of the perineum and no anesthesia was necessary during the delivery. Post-partum she had a hemorrhage, the blood loss of which was estimated as about 500 c.c. For 14 days, her post-partum convalescence was uneventful, as far as any general constitutional reaction was concerned. She appeared sullen and apathetic, and on the second day had to have the baby taken from the breast because she threatened to throw it on the floor. On the seventh day she was given a transfusion of 300 c.c. whole blood because of her extremely anemic appearance and a blood count which showed 2,300,000 red cells and hemoglobin of 28%. On the fourteenth day her temperature rose to 104°. The day following she was given a second transfusion of 500 c.c. whole blood when a blood count showed 3,200,000 and 27% hemoglobin. Then the next day she was taken to the dental clinic where 2 teeth were extracted. Two days afterward she appeared very weak and refused food but took fluids. There was twitching of her right arm which she could not control. The next day this continued and a report of a blood culture which had been taken was positive for non-hemolytic streptococci. The day following there was a drop to the left cheek and the left eyelids were closed and could not be opened completely. The twitching which had been present in the right arm then began to involve the left arm. From then on her condition gradually grew weaker until she expired on the thirty-second day of her stay in the hospital. The physical examination upon her admission brought out two outstanding facts: one was the extremely bad condition of her teeth, some of which were stubby and broken carious roots; the other was her marked anemia as shown by paleness of conjunctiva and the buccal mucous membranes. This was of long duration.

An autopsy was obtained for abdominal exploration only, permission having been refused to examine the brain. The heart showed the mitral valve to be completely surrounded by small, fresh, friable, red cauliflower-like vegetations. The spleen was enlarged about twice the normal size, and had several areas of infarct ranging in size from a small pea to a hickory nut. The liver and kidneys showed congestion and cloudy swelling. The adnexa were normal but on the left lateral surface of the uterus there was a mass of tissue attached to the endometrium which looked like organized placental tissue but which was not necrotic.

DISCUSSION

Dr. Hasking: Her psychosis was due to her septic mouth. In the latter months of pregnancy there is lowered resistance to infection. In these cases, he believes that transfusion will not help nor is it indicated. Antistreptococcic serum is of no use. It is best to extract one tooth and make an autogenous vaccine to better combat the blood stream infection. The particular strain of bacterium is the basis for proper vaccine therapy. This was especially worked out in Trenton by Dr. Cotton.

Dr. Commorato: The oral sepsis is the etiologic factor in the chronic hepaticosplenic involvement with its attendant myocardial degeneration. He felt that removal of the teeth did not influence the outcome of the disease in this patient.

Dr. Docdy: The mental retardation state of the patient is basically due to oral sepsis. The phenomenon of cerebral manifestations being due to bacterial emboli going to the cerebral cortex, and this being followed by the formation of multiple cerebral thrombi.

Dr. Brophy: On examining the eye-grounds found a purulent neuroretinitis and panophthalmia first involving the left eye and then the right.

Dr. Braunstein: Stated that there was no evidence of uterine infection and that the vegetations on the mitral valve of the heart were acute or new formations. There were no infarctions of the kidney, and the spleen showed numerous infarcts, old and new.

Dr. Cosgrove felt that this was not an obstetric death, chargeable to the service.

Dr. Fellamn then presented a case of "Dermoid Cyst of the Ovary Complicating Pregnancy and Labor by Impaction in the True Pelvis".

Female, 17, primi gravida, white, was seen in the Pre-Natal Clinic for the first time in her eighth month of pregnancy, when a diagnosis of fibroid or ovarian cyst complicating pregnancy was made. On admission patient was in labor, and she was permitted a test of active labor for 12 hours with the thought that her tumor might rise out of the pelvis and not obstruct birth of the fetus. It was not possible to manually dislodge this tumor and cesarean section was definitely indicated. Under spinal anesthesia, a lower segment type of cesarean with transverse incision of lower uterine segment was done. A live baby was delivered and placenta removed. Uterus closed in usual fashion. Posteriorly and impacted in the true pelvis was a large dermoid cyst measuring 10 cm. diameter with right broad ligament pulled posteriorly. A right salpingo-oophorectomy was then done. Examination of the cyst showed it contained white caseous material intermingled with hair.

Bayonne Hospital Clinical Conference

M. Shapiro, M.D., Reporter

The regular meeting of the Clinical Conference was held Monday, April 7, at 9.30 p. m. Meeting called to order by Dr. Donohoe, Chairman, with Dr. Shapiro as Secretary.

Dr. Feinberg reported a case of "Aneurysm of Aortic Origin". Patient, colored, aged 42, was admitted to hospital March 17, complaining of pains about precordium, dizzy headaches, marked dyspnea even at rest, orthopnea and marked palpitations. Denied venereal history. Visible pulsations noted all over chest area. Face somewhat puffed. Apex beat diffuse, extending beyond

anterior axillary line down to sixth interspace. Diastolic murmur, very rough, at the apex with a distinct diastolic murmur at the aorta transmitted downward to the left. Also, a diastolic thrill present over the aortic area, with accentuation of the second aortic and pulmonic sounds. Roughened breath sounds over left lower base.

Liver palpable 4 fingers breadth below right costal margin. Spleen not palpable. Pulse of the Corrigan type, rapid rate, 108-115 per minute. Blood pressure 174/78. Radiograph showed the transverse arch of aorta increased in size; heart enlarged in all chambers but much more marked on left ventricle; heart displaced because of marked scoliosis. On fluoroscopic examination pulsations present along the ascending aorta to a marked degree, due to an aneurysm. Wassermann tests, blood and spinal, were negative. This was probably due to the antiluetic treatment given.

On admission, the first urinalysis showed albumin 2 plus, many granular casts, many bacteria, few pus cells and few blood cells. Subsequent urines showed increased amounts of albumin up to 4 plus with increased amount of hyaline and granular casts, pus and blood cells. Because of the nephritic condition no active antiluetic treatment was given. Patient very restless during most time, at times becoming irrational and acting queerly.

Aneurysm of the aorta may involve either the ascending, transverse or descending portion, or the sinuses. The latter type is most frequently met in young syphilitic subjects, with the valves rendered incompetent. The condition is often latent, causing sudden death by perforation. Aneurysm involving the ascending portion of the aorta may pass out into the right pleura, or forward, pointing to the second or third interspace, protruding the ribs and sternum, and producing a large external tumor. In this situation the sac may compress the superior vena cava, causing engorgement of vessels of the head and arm. Perforation may take place into the superior vena cava. The innominate artery is rarely involved. Death from aneurysm may be due to rupture externally; sometimes from syncope.

In this case the diagnosis was aneurysm of ascending aorta, syphilitic aortitis, and chronic nephritis.

A case of "Pernicious Anemia of Addisonian Type". Patient, male, 54 years of age, admitted February 3. Had been in the hospital 1½ years previously with a diagnosis of cirrhosis of liver with chronic myocarditis. Present complaint was of pains and numbness in lower extremities and across upper abdomen, with progressively increasing weakness and loss in weight. Unable to perform any of his labors for the past several months. Also complains of pain and numbness in his fingers of both hands. History of chronic alcoholism. A peculiar lemon-yellow tint to skin, and sclera of eyes showed a jaundiced condition. Heart sounds of poor quality with a soft blowing systolic murmur at apex. Numerous moist and crackling râles through both lungs. Spleen felt 2½ in. below left costal margin; firm and tender on palpation. Patient was permitted to walk about, to observe his gait, and there was evident involvement of the cord; spastic gait.

On Feb. 14 a G.I. series was performed, showing a pylorospasm with an irregular colonic hy-

permotility. Condition probably due to a functional disturbance. Liver and spleen enlarged.

In the Addisonian type of pernicious anemia the pathognomonic signs are reduction of the red cell count, usually about 2,000,000 or less; high color index; leukopenia, presence and predominance of megaloblasts with respect to the nucleated erythrocytes; poikilocytosis in severe cases; and practically every known abnormal variation in the red cell is found in the blood picture of this condition.

The several blood counts made in this case were found to check with all these findings. Anisocytosis, microcytosis, macrocytosis, myelocytes and erythrocytes, showing basophile granules with Wright's stain are nearly always present, though few in numbers. In the Addisonian type of pernicious anemia where nucleated red cells are present the megaloblasts should outnumber the normoblasts, otherwise a specific type of diagnosis should be withheld.

As a result of the constant complaint of the pains and numbness in both legs, an examination of the spine was done to determine whether there was any cord involvement. Patient had an irregular spastic gait with the spine slightly out of alignment. It is known that in this type there is present in over 40% of cases a subacute combined sclerosis of the cord, resulting in a patchy degeneration and this accounts for the tingling and numbness in the feet and legs, and less often in the upper extremities. In a greater proportion of cases there is involvement of the central nervous system which is demonstrable under careful examination. In patients over 50 years of age, between 80-95% show such changes. The symptoms of degeneration of the spinal cord itself may take either the form of a tabes or a lateral sclerosis but oftener there seems to be a combination of anterior and posterior column disturbance.

Prognosis of Addisonian pernicious anemia is today much better than a few years ago; with liver extract, Fowler's solution, hydrochloric acid for the gastric distress, high caloric diet, and a little better understanding of the condition in general, have made it possible to secure recovery from the malady, whereas in the past it was considered a 100% fatal disease.

It is very important to remember that these patients must be kept on a certain amount of liver extract or liver diet to keep the blood normal, the amount to be determined by frequent blood examinations

DISCUSSION

Dr. Chayse said that originally the patient was put on Armour's liver extract with no result. Change was made to Lilly's product and with good results. This bears out the statement of Dr. Murphy, in his talk at the County Medical Society, when he recommends Lilly's production as being up to the standard made by himself and Dr. Minot. The dose must be increased for a while and the patient may continue on liver or extract indefinitely. There was quite a discussion among the members present as to which came first in pernicious anemia, the achylia and achlorides or the anemia.

A case of "Chronic Mastoiditis with Possible Brain Abscess or Infective Sinus Thrombosis". Patient admitted February 28 complaining of severe headache, pains about back and over the long bones, with chills, fever and malaise for 4

days. History of chronic discharge of the right ear for 3 years. During the past 2 weeks, an acute exacerbation with severe pains in the right ear, increased discharge, with pain and tenderness over the right mastoid region.

A young, white, female, 17 years of age, poorly nourished and appearing prostrated and acutely ill. Tongue thickly coated, pharynx congested. Definite swelling over the right mastoid with marked tenderness over the tip and bone above. Temperature 105.8° on admission, running down to 103° the following day. From February 28 to March 27 temperature ranged anywhere from 106° down to normal. The height of fever usually occurred in the afternoon or early evening, reaching an average of 103°, and in the morning down to 100° or even normal.

Consultation was had and conservative treatment and watchful expectancy was advised. However, medication was ordered for discharge of ear and ice bag over the mastoid region. On March 8 the discharge ceased, following the removal of polyps from the right ear. The tenderness over the mastoid lessened, and she then developed for the first time a chill in the morning which lasted for about 15 minutes, began to complain of a stiffness and tenderness along the right side of neck and along the right jugular vein, which was extremely tender and painful. The vein was seen to stand out somewhat prominently and upon slight turning of neck she would cry out with pain. We then began to suspect infective sinus thrombosis of the right side.

X-ray of right mastoid showed evidence of infiltration. The complaint of pains in the back continued for 8 days until they completely subsided. X-ray of the lower spine and pelvis was done showing no pathology in lower dorsal and lumbar and sacral regions. Dr. Woodruff after taking of the pyelogram and x-ray stated that although the kidney was not normal the real trouble was not renal, but that the source of the infection was from some other focus. The extreme degree of septic temperature could not be accounted for except to be traced back to her original complaint of the mastoid.

Examination of the head and neck for meningeal involvement was negative. All reflexes were negative for meningitis. A spinal tap was done which was also negative. Blood culture—several done and all negative. Blood taken during chill for malaria negative.

DISCUSSION

Dr. Chayse said that on admission this girl had given a history of chronic earache and was turned over to the ear service with the idea of operation but was advised expectant treatment. This case shows the stormy nature of a chronic ear.

Dr. Finger reported from the service of Dr. Brooke.

(1) Male, aged 40, admitted March 6, in a comatose state, after being struck in the head by an automobile. After recovering from shock, he became partially oriented and complained of a severe frontal headache. Laceration in the left temporal region 1½ in. long. Through the wound many pieces of bone and brain cortex seen. The adjacent bone depressed and felt like broken egg shell. Marked contusion of forehead and frontal region noted. Both eyelids edematous and ecchymotic; subconjunctival hemorrhages. Nose fracture at naso-frontal border. Marked bleeding from

nose. Large contused area on left shoulder. Heart sounds feeble but regular. Pulse rapid, low tension B.P. 98/74. Reflexes hyperactive. No signs of intracranial pressure. Radiograph showed fracture of left temporal and fracture of inner table of frontal bone. Treatment: Intravenous glucose 5% 500 c.c.

On March 17 temperature went to 104° and a spinal tap was done. It was under marked pressure, and showed pus, globulin, and 30,000 cells to cu. mm. March 19, temperature rose to 108°, and patient expired.

(2) Mrs. B., white female, aged 28, admitted December 18, with temperature of 104°. Present illness began that morning with chilliness, pain in the right shoulder, and severe generalized pain in abdomen, followed by vomiting of all food. Tenderness and rigidity appeared generalized over entire abdomen. Treated symptomatically until January 18, when she signed a release.

Patient readmitted March 17, with temperature 99.8° complaining of pain in lower abdomen. Physical examination revealed a mass about the size of 3 months pregnancy in the pelvic region.

She was operated upon March 20, with right rectus incision near midline. A mass about the size of 4 months pregnancy found growing from right adnexa. Adherent to sigmoid, rectum and small gut. Multilocular cyst and main mass full of pus. Left adnexa normal. Adhesions freed and minute rent in gut closed. Free serous fluid found in abdomen removed by suction. Broad ligament opened disclosing cyst on tube which ruptured and filled body cavity with *B. coli* pus. Cyst wall excised as far downward as could be reached and large drain inserted.

(3) Mrs. S., white, female, aged 29, admitted March 5. Patient had 3 children. Has not lived with husband since 1928. Menstrual periods regular up to time of admission. Present illness began with severe pain in lower abdomen while lifting enamel plates at work. Was taken home where she vomited several times. She was admitted to the hospital at 4 p. m. in state of shock, with blanched lips and subnormal temperature. The abdominal pain was so severe she was unable to sit up; more severe in the right lower quadrant than the left.

Patient treated symptomatically until March 14, when a right rectus incision was made. Abdomen was filled with organized clots; uterus, omentum and bowel adherent. The right tube and ovary were involved in the mass. Slight bleeding from the median portion of right tube. The clots were removed. Adhesions were cut and omentum freed. The mass was excised with right tube and ovary; uterus was suspended.

(4) Mrs. E. M., white female, aged 47, admitted March 6, complaining of attacks of pain in the right upper abdomen, radiating to the back and toward the umbilicus and accompanied by slight jaundice. The pain and indigestion similar to attacks she had prior to having her gall-bladder drained in 1924. Patients menstrual periods had been regular. In 1922 had a nephrectomy, right, for removal of stone in kidney; in 1924 a cholecystotomy and appendectomy.

Incision in midline to avoid old scar. Gall-bladder found densely adherent to surrounding structures. It was picked up, freed from adhesions, ligated and excised. Wound closed in layers.

(5) Mrs. C. M., colored female, aged 40, married, admitted February 20. Temperature normal.

Present illness began last November when her menstrual periods became irregular. The flow at her periods became excessive and she flowed between periods. Also complained of weakness and loss of appetite.

Lower abdomen centrally enlarged by a hard mass. Vaginal examination showed enlarged fundus, to the size of 3 months pregnancy. Urine showed trace of albumin and few pus cells. Blood count 1,360,000. Hemoglobin 29%. Poikilocytosis, anisocytosis, microcytosis, white count, 7300.

Usual midline incision made. The uterus was enlarged with multiple subserous fibromas, some showing cystic degeneration. Small intestine adherent to uterus. Uterus was mobilized and intestinal adhesions freed. Uterus removed completely without adnexia. On section it contained interstitial and submucous fibromas. Wound closed in layers with a Penrose drain above and vaginal drain below. Patient made uneventful recovery.

HUNTERDON COUNTY

Barclay S. Fuhrmann, M.D., Secretary

The regular meeting of the Hunterdon County Component Medical Society was held at Flemington, N. J., Tuesday, April 22, 1930, at 10.30 a. m. The meeting was called to order by the President, A. Louis Gramsch; the minutes of the last regular meeting were read and approved. The following members were present: T. B. Fulper, A. H. Coleman, E. W. Closson, A. L. Gramsch, L. A. Hamilton, E. W. Lane, G. B. Tompkins, I. T. Topkins, L. C. Williams, M. H. Leaver, and B. S. Fuhrmann. The following guests were present: Drs. M. W. Reddan, G. N. J. Sommer and H. O. Reik.

The committee appointed to arrange for the erection of the memorial tablet reported that arrangements were well under way and that the tablet would be ready for unveiling when the society holds its summer meeting at the Glen Gardner Sanatorium.

The Committee on Revision of By-Laws made its report and on motion regularly made and seconded the new by-laws were adopted as amended.

The application for membership of W. E. McCormick, residing at Ringoes, N. J., was read, and he was balloted for and was unanimously elected.

The secretary presented a bill of \$5.68 and a motion prevailed to pay the same.

Dr. Martin W. Reddan then gave a talk on "Head Injuries". Dr. Reddan in opening digressed from his title to call attention of the members to a common mistake in diagnosis that had recently been brought to his knowledge. Too often, especially in young children, the pain and discomfort in pneumonia are referred to the abdomen and unless a thorough examination of the chest is made, a diagnosis of appendicitis results, and the child with a lung lesion is subjected to additional dangers from operation.

Dr. Reddan, in quoting Dr. W. E. Lee, of Philadelphia, said, "In 60% of defective children at the Pennsylvania General Hospital, a history of head injury could be obtained"; he believed a great deal could be done to relieve such a state of affairs if more attention was paid to the so-called simple head injuries, because what seems to be a simple laceration of the scalp may be a severe contusion of the brain. He advised early decompression of all the cases not waiting the development of serious neurologic symptoms.

Dr. Somner opened the discussion by emphasizing Dr. Reddan's remark with reference to the frequent error in diagnosis. He then took issue with the essayist regarding early decompression in all cases of head injury, but preferred to wait until definite neurologic symptoms had developed and the lesion localized.

This discussion was continued by the members of the society who agreed that when authorities differed, the general practitioner might be excused for hesitating in an opinion.

Dr. Reik then addressed the society and gave a report of the Welfare Committee which proved very interesting.

After the Treasurer had made his usual assessment, the meeting adjourned to the Union Hotel where dinner was served.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club April 9, President Vanneman calling the meeting to order, and, following the reading of the minutes, which were approved as read, introducing the speaker of the evening, Dr. Orlando H. Petty, Professor of Metabolic Diseases at the Graduate School of Medicine, University of Pennsylvania.

Dr. Petty spoke on the subject of "Obesity and Its Treatment". The relative activity of the thyroid in metabolic changes, resulting in the formation of excess fatty deposit in particular areas of the body, in different tribes of the foreign countries was discoursed upon, followed by a more or less detailed outline of treatment to be instituted in the management of cases occurring in general practice as observed in this country.

Following discussion, a rising vote of appreciation was tendered Dr. Petty for the very able manner in which he presented the subject.

The application of Drs. R. J. Belford, M. H. Friedman, and J. A. Holland for active membership, and Drs. J. Pantaleone and J. L. Wikoff for associate membership, were read and referred to the Membership Committee.

Dr. Schauffer presented an invitation from the Board of Trustees of the Skillman Epileptic Village, for May 23, at 3 o'clock, supper at 6, the occasion being a joint meeting of Somerset, Gloucester and Mercer Counties with the Woman's Auxiliary Society also invited. The motion was carried that the invitation be accepted.

Dr. Vanneman presented the names of the Public Relations Committee, as follows: Drs. R. H. C. Phillips, J. J. McGuire, C. J. Slack, H. R. North, W. E. D'Arcy.

Bills for printing and projection service were read and ordered paid.

Communications from the Committee on the cost of Medical Care, and the Bergen County Medical Society were read and filed.

Dr. J. W. Crane spoke of a former motion relating to the practice of medicine by members of the society employed in State, Municipal and County Institutions.

Dr. Cotton called for the reading of the minutes of the February meeting, followed by a motion that the names of the proposer and the seconder of the above referred to motion be appended to the minutes, the motion carried.

An amendment offered by Dr. Cotton and seconded by Dr. Costill was moved laid on the table for one month.

Luncheon was served following adjournment.

MIDDLESEX COUNTY

Wm. C. Wilentz, M.D., Reporter

The regular monthly meeting of the Middlesex County Medical Society was held April 16 at the Perth Amboy City Hospital. The minutes of the last meeting were read and accepted.

The Membership Committee reported favorably on the applications of Dr. Morris, of Metuchen, and Dr. Kler, of New Brunswick. On motion of Dr. Longbothum, both physicians were elected members of the society. Reapplication of Dr. Wolfman, of New Brunswick, was referred to the Membership Committee.

Dr. Reik gave a most interesting talk on the Journal and the various activities in the State Society.

Dr. Aaron Parsonnet, of Newark, read a most instructive paper on "Coronary Thrombosis". The paper was given in a practical manner and was thoroughly enjoyed by all present. A very interesting discussion took place. A vote of thanks was extended Dr. Parsonnet for his splendid paper, which will be sent for publication in the Journal.

The questionnaire reports concerning change in meetings was referred to the Program Committee.

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

A special business meeting of the Medical Section of the Rutgers Club was held on Friday evening, March 21, at the office of Dr. Nafey, 98 New Street.

The meeting was called to order at 9 p. m. by the Chairman, Dr. Schureman, with 21 members present. The minutes of the last business meeting were read and approved. A report was made by the auditing committee: balance on hand, November 13, 1929: \$47.04. It was moved and passed that this report be accepted.

There were no reports under unfinished business.

Under new business, the applications for membership of Drs. King, Neiman and Karshner were read. Dr. Scott mentioned that Dr. Robert B. Walker made application some time ago and no action had been taken; whereupon the 4 above-named physicians were duly elected to membership.

A motion was made and passed that the minimum fee for toxin-antitoxin immunization be \$6, and the minimum fee for small-pox vaccination be \$2.

A motion was made and passed that a committee be appointed to investigate the duties, functions and accomplishments of the various public health agencies of the city, county and state. County Physician, J. F. McGovern, explained some phases of the work of the County Physician. City Physician, L. A. M. Feher, explained the various duties and functions of the City Physician. City Health Officer, Dr. Cronk, explained the work he directs as Health Officer and City School Physician.

There being no further new business, the club

proceeded to election of officers for the ensuing year. Dr. Howley, chairman of the nominating committee, presented the following names: Chairman, Dr. William Klein; Vice-Chairman, Dr. F. C. Johnson; Secretary and Treasurer, Dr. John H. Rowland.

The nominations were closed and a motion was made and passed that the Secretary cast a vote for election of the above-named officers.

MONMOUTH COUNTY

Dr. F. Featherston, M.D., Reporter

The March meeting of the Monmouth County Medical Society was held in the Berkeley-Carteret hotel, Dr. J. A. Fisher presiding. Minutes of the previous meeting were read and accepted. Communications were read and ordered filed.

A letter from Dr. W. B. Allen, who formerly practiced in Keyport and whose license was revoked 4 years ago by the New Jersey Board of Medical Examiners, was read. On motion of Dr. Wilbur the secretary was requested to obtain information concerning Dr. Allen's habits since he has been practicing in Vermont. Motion carried.

Dr. Frank Altschul reported for the Committee on Extension Courses that the quota had been obtained and the lectures would begin on April 2.

The meeting was addressed by Dr. Andrew F. McBride, President of the Medical Society of New Jersey, and Dr. J. Bennett Morrison, Secretary of the Medical Society of New Jersey.

Dr. Marcus W. Newcomb, of Browns Mills, N. J., Councillor for this district, spoke to the society on impending public health legislation, saying that he thought all bills concerning the medical profession were well taken care of.

Dr. Harold Disbrow, of Lakewood, was elected to honorary membership.

The motion picture, made by Dr. Canti, of London, showing cellular activity, was exhibited and was well received.

A buffet lunch was served.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society was held the evening of Wednesday, April 16, at The New Jersey State Hospital, at Grey-stone Park, by invitation extended through Superintendent Curry, not only in his own behalf but that of Commissioner Ellis of the Department of Institutions and Agencies and the Board of Managers of the institution.

The scheduled meeting was preceded by a dinner in honor of the guest speaker, Dr. Walter Timme, of New York, President of the American Society for Research in Mental and Nervous Diseases. This function was held in the suite of the hospital Board of Managers and in addition to the present and past officers of the society there were present: Commissioner Ellis of the Department of Institutions and Agencies, Dr. Augustus S. Knight, Vice-President of the hospital Board and honorary member of the society, and other Board members, including Dr. George O'Hanlon and Mrs. Jayne Millard Doyle, both of Jersey City.

The formal meeting was held in the recreation

room of the hospital cafeteria building where President Collins had the pleasure of introducing Dr. Timme to an audience of about 80 members and guests; the latter including representatives of the nursing and psychiatric social service staffs of the Greystone Park Hospital and of the North Jersey Training School for Feeble-minded at Totowa.

Dr. Timme's subject was "Behavior As Influenced by Endocrine Disturbances" and it was covered in a manner and style that made it altogether captivating. He explained that because of the furore now going across the medical horizon regarding our various types of psychiatric endeavor, child guidance, behavior problems, and because of the intense interest in the origin of behavior problems, he had gone over a number of cases in order to try to group them on a basis of behavior as influenced by certain groups of glandular disturbances. Citing that in trying to help the child and to overcome the difficulties of his surroundings or his environment our present system is prone to over-do by making on such child or children psychologic onslaughts, making environmental changes by removing the child from the bad to a better environment, or endeavoring to change the child while keeping him in the same environment; also pointing out disadvantages the child will rest under who has been taken from a bad environment when, in later years, there is nobody to solve his problems and "there will be a man waiting around the corner for him" and he will be an easy victim because he has never been taught to surmount his own problems. He had found that certain cases were helped to a degree by psychologic approach but he also found a group of patients where psychology is ineffective; indicating for this group biochemical feeding with no resort to psychologic approach.

One group is known as "status hypoplasticus" and Dr. Timme also indicated a second well marked group in which there is under-development of height, poorly developed muscular system, increased blood pressure, increased heart action, increased blood sugar, a tendency to impulsive outbursts and action without judgment but with penitence afterward, in contrast to the normal person who will swallow the first words and acts until judgment comes into play; in this group he found a deficiency of calcium utilization and that feeding calcium alone was a help only in an insignificant number of cases until used in conjunction with the active principle of parathyroid.

The deficiencies of gland functioning, some of which were in time compensated, were gone into with much particularity, and the lantern slide pictures showed structural development and physique of the types discussed, in which considerable stress was laid on the sella-turcica as being deformed and interfering with growth of the pituitary gland.

At the close of his address Dr. Timme was given a rising vote of thanks, and discussion was entered into by Drs. Curry, Lane, Lathrope, Abell, Beling and others.

Word having reached President Collins of the illness of the oldest member of the society, Doctor Owens, action was unanimously taken that Dr. Emory act as a committee to send flowers to the beloved member.

The members and guests adjourned to the cafeteria proper where appetizing refreshments were enjoyed.

PASSAIC COUNTY

Frank W. Ash, M.D., Reporter

The April meeting of Passaic County Medical Society was held at the Health Center, Paterson, April 10, with 60 members present, and Dr. James P. Morrill presiding. The minutes of the March meeting were approved as read.

The application of Dr. Maurice Chapnick was returned by the Board of Censors with approval, but was voted by the Society and defeated by a vote of 14 to 7.

The following new applications were read to the Society and ordered sent to the Board of Censors for investigation: Charles F. Scudder, Dominick Marini, Isador Cohn, I. Jerome Sobel, Edward Ehrenfeld, Samuel R. Lustberg and Michael De Mattia.

The Scientific Program was given by the staff of the State Hospital at Greystone Park.

Dr. A. G. Lane, Clinical Director of State Hospital, read a paper on "Psychiatry Problems". Dr. Thomas B. Christian, Pathologist to the State Hospital, spoke on "Neurosyphilis". Dr. Earl B. Fuller, Director of Mental Hygiene Clinics, talked on "Mental Hygiene".

Dr. Marcus A. Curry, Superintendent of the State Hospital at Greystone Park then spoke on the subject of establishing better care of patients sick with mental diseases. New Jersey is one of the few states that allows patients to be incarcerated in jails awaiting examination and transfer to hospitals for the insane. Several counties in this state have taken steps to improve the care of these unfortunate people. Hudson County, the cities of Elizabeth and Newark, Bergen County and counties in the southern part of the state have means to adequately care for mental cases while awaiting transfer.

Dr. Curry suggested that Dr. O'Hanlon of Jersey City be asked to give his ideas of benefits to be derived from having a ward in a General Hospital. Some expense is involved which would cause a slight rise in taxes, but it is a thing that people are wanting and demanding. If a law that is now under consideration is passed the counties will be compelled to do it anyway. Dr. Curry suggested that the Woman's Auxiliary and Women's Clubs be interested and asked to help. There are many humanitarian points which could be discussed as to why this is necessary. These individuals have committed no crime, and certainly should not be thrown into jail. Put the matter before the officials and lay organizations and ask for help.

Dr. H. H. Lucas stated that he enjoyed the scientific program very much and felt indebted to the men for coming here. Formerly, the nervous system and body were treated as separate entities. All mental cases were treated by incarceration. Now, throughout the country, there are as many beds for mental cases as for all other kinds of sickness together. Passaic County is providing well for the physically sick but has done nothing at all for its citizens with mental sickness. Regardless of whether it is legal to put the mentally sick in jails, it is cruel and inhuman to do so. It hurts them, ruins their pride, and

casts a stigma upon them which it is impossible to efface. The county needs a ward for treating these cases. In proper surroundings many of these cases will be brought back to normal and will not need to be sent to the State Hospital.

Dr. Surnamer mentioned that a few years ago we had a campaign to help people realize the importance of early recognition of cancer. It is just as important to recognize mental diseases early. Syphilis of the central nervous system should be recognized by the general practitioner before the disease is so far advanced as to make recovery impossible. He emphasized the need for a Mental Clinic in a local hospital, for treatment, diagnosis, and caring for those cases that develop after operations and following confinement.

Dr. Wassing spoke of the treatment of syphilis of the brain and made a plea for earlier recognition of this disease. He was also fully convinced of the necessity for having a ward in this city for the treatment of mental diseases.

Dr. Mitchell mentioned that in the Swedish Army syphilis among the officers showed a development of central nervous system syphilis in 5% of the cases. It is estimated that from 10 to 15 millions of people in the United States have syphilis. The development of paresis is a distinct reflexion on the medical profession. Patients apply for treatment and often the disease is unrecognized. Patients should be treated adequately and the possibility of future developments should be explained. If these are explained in full, the patient will usually be faithful and get all the treatment necessary. To prevent development of these mental cases is much better than caring for them after they have developed.

Dr. Norval spoke on the good work being done in the Mental Hygiene Clinics. It was at first difficult to establish these clinics but now they are crowded. At each clinic there is a social service worker, one or more psychologists and a psychiatrist. This work would dovetail with a Ward Service established somewhere in the county. *Dr. Norval* has been advocating a Ward Service for Mental Cases ever since he became County Physician. He believes it wrong to send such patients to jail, but they are unwelcome in any hospital and as diagnosis is impossible immediately some place is needed for expert observation. In the jail they get restraint but no observation to aid in diagnosing their condition.

Dr. McBride remarked that this had been an interesting and profitable evening, and that the haphazard care of these cases had been going on for 25 years to his knowledge. He made the following motion, which was seconded and carried: that a committee be formed to request the Board of Chosen Freeholders of Passaic County to aid in establishing proper facilities for care of the mentally sick in this county while awaiting transfer to State Hospital.

Another motion was made by *Dr. Ash*, and seconded and carried, to interest the Women's Club and Woman's Auxiliary in this project and to seek their aid in appearing before the Freeholders.

Dr. Morrill thanked *Drs. Lane, Christian, Fuller, and Curry* for the splendid program and requested the society to give them a standing vote of thanks, which was done.

SOMERSET COUNTY

J. H. Cooper, M.D., Reporter

The course of lectures given under the auspices of Rutgers University and the State Medical Society began Friday, April 14, in the Recreation Room at the Nurses' Home at Somerville, Hospital, with 35 physicians from Hunterdon and Somerset Counties present.

On Thursday, April 10, the Somerset Medical Society held its regular meeting in the Nurses' Home with 21 members present.

Dr. Ely and his committee presented the various changes to be made in the Constitution and by-laws. As corrections were noted at the reading of each article, the committee was continued.

Our genial president, *Dr. Lawton*, launched a plan whereby the members of the society be aided in collecting bad bills; by presenting their bills through the society for an attorney to collect. Every member present heartily endorsed the scheme and voted to continue the committee of which *Dr. Lawton* is chairman.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

A largely attended meeting was held at Muhlenberg Hospital, Plainfield, on the evening of April 9, with *Dr. H. H. Bowles*, of Summit, presiding. We were signally honored by the presence of *Drs. Andrew F. McBride*, President of the State Society, *J. B. Morrison*, Secretary, and *Henry O. Reik*, Editor of the Journal. Each of these gentlemen, heartily welcomed, brought felicitous messages of greeting; and gave interesting and inspiring talks on the wonderful work the State Society is accomplishing along educational, legislative, journalistic and other practical lines.

The guest speaker of the evening was *Dr. C. Gordon Heyd*, of the Post-Graduate Hospital, New York, who chose as his topic, "The Classification, Diagnosis and Treatment of Goiter". This gifted teacher illustrated his lecture by many fine lantern slides depicting various abnormalities of thyroid function. A rising vote of thanks was tendered him.

Memorial resolutions were unanimously adopted on the deaths of *Dr. H. C. Pierson*, of Roselle; and *Dr. B. W. Hoagland*, of Woodbridge, and sent to their bereaved families.

Five applications for membership were referred for action at the next meeting, and the following physicians were elected: *Albert Lewis*, Cranford; *Alfred E. Whitehouse*, Summit; *Joseph J. Kralik*, Alex. Strechlinger, H. B. Goldmacher and A. B. Schilling, of Elizabeth. *Dr. Chas. H. Schlichter*, of Elizabeth, was elected a member of the State Society Nominating Committee.

A social hour, made even more enjoyable by a fine collation, brought the meeting to a close.

Summit Medical Society

William J. Lamson, M.D., Secretary

The Twenty-fifth Anniversary of the Summit Medical Society was celebrated on April 15, 1930, by a banquet at the Baltusrol Golf Club. The following members of the society were present: *Drs. Allis Baker*, Bensley, Bowles, Burritt, Byington, Campbell, Dengler, Disbrow, Eason, Hal-

lock, Keerey, Krauss, Lamson, Larrabee, Lawrence, Macpherson, Meigh, Milligan, Moister, Morris, Pollard, Prout, Reiter, Smalley, Tidaback and Wolfe; and also the following guests: Dr. Andrew F. McBride President of the Medical Society of New Jersey, Drs. Sutphen and Lathrope, of Morristown, and Drs. Miller, Messina, Ford, Thomson, Sly, Steuart and Whitehouse, of Summit.

A quarter of a century ago 10 physicians of Summit, deploring the lack of cohesion in the medical profession in the vicinity, and envisioning the possibilities for good, both to themselves and to the community, by uniting together, gathered at the call of Dr. Robert H. Hamill and discussed the subject. All were favorably disposed, and organization of the Summit Medical Society was perfected at the home of Dr. William H. Lawrence, Jr., on April 13, 1905. Charter Members of the society were: Drs. Robert H. Hamill, Thomas P. Prout, William H. Lawrence, Sr., William H. Lawrence, Jr., J. Boyd Risk, Raymond D. Baker, John Burling, Eliot Gorton, Walter Gray and William J. Lamson. Of these Charter Members death has removed Drs. Hamill, Lawrence, Sr., Risk, Gorton and Gray. The membership now consists of 30 physicians living in Summit and vicinity.

Dr. Josiah Meigh, of Bernardsville, President of the society, acted as toastmaster at the Anniversary Dinner.

Dr. Thomas P. Prout spoke reminiscently of the history of the society, and of the progress in medicine since its organization. He recalled many salient characteristics in the personalities of former members who have died. He then paid a tribute of appreciation to the Secretary, who has served as such continuously for the full 25 years, and presented him, in the name of the society, with a set of platinum and onyx shirt studs.

The Secretary thanked the society for its handsome gift, and assured the members that he would continue to serve them as long as he could prove useful.

Dr. Andrew F. McBride, President of the Medical Society of New Jersey, congratulated the society on its twenty-fifth birthday, and urged it to continue to support the highest ideals of the profession; and to work for such legislation as will maintain the educational standards of any who desire to practice the healing art in this state at their present high level.

Drs. W. H. Lawrence, R. D. Baker, F. I. Krauss, W. Campbell, Geo. F. Lathrope and E. L. Macpherson also spoke on different phases of the society's relation to the profession as well as to the communities which it serves.

After a sumptuous repast and the informal speeches, which were enjoyed by all present, the meeting ended, well after midnight; and another pleasant event in the society's progress passed into history.

Elizabeth General Hospital

Harry Bloch, M.D., Reporter

A regular meeting of the Clinical Society was held at the Elizabeth General Hospital, Tuesday evening, April 15, with Dr. Michael Vinciguerra presiding. The following members were present: Wade, Lerman, Gerendasy, Chaiken, Runnels, Wilson, Blumberg, Sell, Montfort, Shirrefs, Laird, Leggett, Gittlemann, Seymour, Williams, Green, Giglio, Lieberman, Banker, Horre, Proudfoot, Labow, R. Walsh, Vinciguerra, Bloch, Quinn, Bro-

kaw, Nittoli, Eaton, Strickland, Cassili, Bunting, Drury, Reiner, Hoover, Livengood.

Dr. J. Blumberg presented a case of "Chronic Dacryocystitis" operated upon by the Yankaw method with complete cure. Discussion by Dr. Norton Wilson.

Dr. J. Blumberg reported a case of "Acute Mastoiditis with Sixth Nerve Paralysis". Mastoidec-tomy was performed with the result that a gradual return to normal function of the nerve occurred with eventual complete recovery. The theory propounded for the nerve involvement was that a periostitis of the tip of the petrous portion of the temporal bone produced an irritation of the sixth nerve which crosses the bone at this point. Operation gave vent to the secondary manifestation and a cure resulted.

Discussions were carried on by Drs. Wilson and Strickland

Dr. J. Reiner reported a case of "Acute Mastoiditis" with absolute negative x-ray findings.

Dr. Wilson told of some of his experiences while touring the south, relating in particular the seeing of cases of "Jamaica Ginger Poisoning" resulting in permanent peripheral nerve paralysis.

The paper of the evening was read by Dr. George Seymour, his subject being "Sinusitis in Children". He gave a complete analysis of these conditions as to their etiology, anatomy, pathology, treatment and results.

The paper was well received and discussions were carried on by Drs. Wilson, Liard, Reiner, Blumberg and Sell.

Dr. Michael Fieder was elected to membership to the society by a unanimous vote.

The meeting adjourned and a collation served by the Ladies' Auxiliary to the Elizabeth General Hospital.

WARREN COUNTY

F. A. Shimer, M.D., Reporter

The quarterly meeting of the Warren County Medical Society was held on Tuesday, April 15, at the Elks' Club, Phillipsburg, at 11 a. m. Those present were Drs. L. C. Osmun, G. Cummings, L. H. Bloom, F. Curtis, H. Bossard, Paul Drake, F. P. McKinstry and C. H. Lyon. President Paul Drake in the chair. Dr. F. C. Roberts of Easton, Pa., read a paper on "Diuretics", which was followed by a general discussion.

Routine business was transacted, and the amendment to the By-Laws was passed in reference to the Annual Delegates, which hereafter will be appointed instead of elected.

Miss Askew, of the State Library Commission, spoke on "Free Circulating County Libraries", and wanted our endorsement of the same, which we granted her.

Luncheon was served in the dining room and the meeting adjourned.

Obituaries

BATES, Charles Atwood, died at his home, 919 S. Main Street, Pleasantville, March 21, 1930, after an illness of several weeks' duration.

Dr. Bates was born in Belpre, Ohio, the son of the Rev. James A. Bates. He graduated from the Mount Vernon State Normal School, the Berwick Academy, University of Vermont and the

Vermont Medical College. He was a member of the Massachusetts State Medical Society, the New Jersey State Medical Society, the American Medical Association, and the American Legion. During the World War, he served as a medical officer at Fort Adams.

Dr. Bates practiced several years at Ashburham, Mass., before coming to Pleasantville.

HOAGLAND, B. W., died suddenly at 2.30 p. m., April 8, in his home at 509 Barron Avenue, Woodbridge, from heart disease. He was 63 years old. Less than an hour before his death Dr. Hoagland had written a prescription for a patient in the latter's home and had just arrived at his own home when the attack came.

Dr. Hoagland had practiced medicine in Woodbridge and vicinity for the past 33 years. He was a member of the Union County Medical Society and of the staff and Board of Governors of the Rahway Memorial Hospital. He served as a physician in the World War and was a member of Woodbridge Post No. 87 American Legion, Euclid Lodge Knights of Pythias, Woodbridge Council No. 1743 Royal Arcanum, and a member of the board of directors of the First National Bank of Woodbridge. Dr. Hoagland was a member of the First Congregational Church of Woodbridge.

At the April meeting of the Union County Medical Society the following resolutions were unanimously adopted:

Whereas: Divine providence has called from among us our esteemed friend and brother practitioner, Dr. B. W. Hoagland,

Be It Resolved that we, the members of the Union County Medical Society, do hereby express our deepest sorrow for the loss of a true friend and an esteemed colleague.

Dr. Hoagland was an able physician, a man of sterling character, with a large circle of friends throughout the state. He loved his profession and was always ready to assist a brother physician at any time or place.

Be it further resolved that we the members of the Union County Medical Society extend to the bereaved wife and family our most sincere and heart-felt sympathy.

Frederick Sell, M.D.,

George Orton, M.D.,

Special Committee.

PIERSON, Henry Chatfield, long known and loved in the community where he had resided since 1868 as "The Old Doctor", a veteran of the Civil War and a prominent member of the Masonic craft, died Saturday, March 29, at the home of his daughter and son-in-law, Mr. and Mrs. Harry M. Slauson, at Locust Street and Sixth Avenue, Roselle.

Dr. Pierson was born in Westfield, November 22, 1843. He attended school in Elizabeth, entering Georgetown University to take up the study of medicine, which he was to practice in Roselle and its vicinity for more than a half century. The breaking out of the Civil War, interrupted these studies, and the young man entered the medical corps of the Finlay Hospital, which performed notable service for the soldiers of both the Federal and Confederate forces.

At the conclusion of hostilities, he returned to Georgetown, and completed his courses, graduating from the university in 1867. Dr. Pierson was the oldest living graduate of this institution.

Coming to Roselle when the town was only a tiny village, with board sidewalks and not yet electrically lighted, the young doctor located his offices in the hotel of the town known as The Mansion House, a big rambling hostelry, standing on the present site of the Van Court Inn.

In 1878 he married Miss Julia Porter Norris, of New York City, daughter of the late Mr. and Mrs. Daniel Norris, who came to this country from Dublin, Ireland. A year later Dr. Pierson opened offices in his own home and a little later purchased a house and one acre of ground at First Avenue and Walnut Street, where he resided until about 15 years ago.

The doctor was widely known and held in the deepest and most affectionate regard by all who knew him. His practice often carried him to Plainfield and Netherwood and other towns along the railroad and, although dependent upon a horse and buggy, and obliged to cope with the heavy, red clay roads of the countryside, never refused to respond to a call where suffering could be relieved.

He was an outstanding member of the Union County Medical Society, a member of the Society of New Jersey Alumni of Georgetown University, a member of the Royal Arcanum, whose local council he was instrumental in organizing.

He was the oldest Past Master of Azure Lodge and the oldest member of the Azure Lodge, F. and A. M. He was the seventh petitioner to the Grand Lodge for a charter for Azure on January 12, 1872, and had been a member for 58 years.

When the lodge was constituted on April 18, 1872, at Roselle, he was appointed senior deacon, and again appointed to the same office for the year 1873. In 1875 he was elected senior warden. He was elected Worshipful Master of Azure Lodge in 1877 and again in 1878 and 1879. He served the lodge as trustee for the years 1874 to 1876, and 1890 to 1895. At the fiftieth anniversary of the lodge, January 16, 1922, Dr. Pierson was present.

Dr. Pierson found time in his busy life to occupy still other posts of honor and for many years was physician for the school board, held the presidency of the local Board of Health for a number of terms, and was a member of Ulric Dahlgren Post, Grand Army of the Republic. On his eightieth birthday anniversary the children and teachers of the Roselle public school system observed the date with a handsome basket of flowers and a beautiful gold cigarette case, attractively monogramed.

RESOLUTIONS

At a meeting of the Union County Medical Society, the members expressed a desire to convey to the family of the late Dr. Henry C. Pierson, their sincerest sympathy in their bereavement.

Dr. Pierson's outstanding quality, rendering service to others, manifested itself early in his career during the Civil War and continued to do so all through his life, in civic affairs as well as professional duties.

He was exceptionally blessed with a genial, confidence-inspiring personality, which won for him the respect and esteem of his numerous patients as well as that of the members of his profession.

His work showed keen judgment and deep human sympathy and such a man leaves many friends, who grieve at his passing.

James S. Green, M.D.,

for the Committee.

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HOSPITAL PROBLEMS*

I. L. NASCHER, M.D.,

Chief Physician, Department of Hospitals,
New York City

The last half century has witnessed revolutionary changes in the science of medicine and there have been just as radical changes in the conduct of our hospitals. The older members of our profession who recall the hospital situation in the late seventies and early eighties of the last century will recall the deep seated prejudice existing everywhere against hospitals, especially against public hospitals. There was then a widespread belief that if a patient could not pay, or remained too long in the hospital, he was given the *black bottle*, as poisons in those days were kept in black bottles. It was also a widespread belief that undergraduate interns were allowed to make all sorts of experiments with patients; that if a patient died, the body, if not claimed immediately by the family, was sent to a medical college for dissection. The basis for these beliefs was the high mortality rate in hospitals. The major problems in those days were how to get patients to go to hospitals and how to get money to carry on. Today, the first of these problems has given way to one of opposite character—how to get enough hospitals and hospital beds for all patients who want to go to the hospital. This has become a part of the financial problem that besets all hospitals that have no permanent income from endow-

ment or land and must depend mainly upon uncertain annual dues and donations. I do not want to discuss the financial problems of our hospitals, but we cannot dismiss this matter altogether, since it affects all of the medical problems of our institutions. It affects the selection and functions of executives, care of patients, work of the medical and other staffs, indeed the whole conduct of the hospital depends upon its financial resources. But aside from the financial problems which influence every branch of the hospital activities, there are general problems which are common to all hospitals except small proprietary institutions carried on as a business enterprise. The relationship between the governing lay board which controls the finances and the medical board which has direct charge of the treatment of patients, the relationship between the superintendent and the governing and medical boards, the status of the nursing staff, the management of the nonmedical departments of the hospital, all factors which affect the welfare of the patients, are all matters which come up for discussion in nearly all hospitals.

The status of the superintendent ranges from autocrat to rubber stamp, from medical chief to business manager and collector. Logically the proper head of a medical institution should be a physician who has had hospital experience, yet in New York City, out of 105 private hospitals, only 22 have medical superintendents or directors, and 12 have graduate nurses. Of the others, 40 have male lay superintendents, 14 have female lay superintendents, 5 have ministers, and 14

*(Read before the Academy of Medicine of Northern New Jersey, Newark, December, 1929.)

have Sisters of Charity, at their head. Nearly all of the hospitals that have medical superintendents are so situated financially that their executive heads need not concern themselves about the collection of funds. Some of the lay heads are in a like position, but most must be business managers as well as hospital executives. Physicians are proverbially poor business men and hospitals that depend upon uncertain collection of annual dues and donations need executives who are also able to attract funds to their institutions. They must be good executives and able to supervise diverse groups and activities. Physicians as a class are not only poor business men, they are as a class poor executives. They have not been trained to deal with masses, to supervise diverse activities and groups of individuals. Moreover, the physician's training tends to make him autocratic and he becomes accustomed to give orders and to demand that his orders be carried out. As hospital superintendent he must be subordinate to the governing board which pays him his salary and to the medical board which is supreme in the matter of treatment of patients. Then, there is the question of salary. Few hospitals pay medical superintendents salaries commensurate with their positions, ability and work. There is no inducement for the young physician to take up permanent hospital management when the highest salary he can receive for 10, 15 or 20 years of work is \$5000 a year. Of the 26 institutions in the Department of Hospitals in New York City, there is only 1 medical superintendent who receives \$5500, and 2 who receive \$5000, while in private hospitals there are a number of lay superintendents who get much higher salaries.

There are 38 of the 105 private hospitals and 3 out of the 26 public hospitals in New York City that have female superintendents. Of the 38 private hospitals, 14 are run by Sisters of Charity and 12 by graduated nurses. There are very few women who are fitted temperamentally or by training, to run so complete an institution as a hospital. The Sisters of Charity and the nurses are accustomed to ward duty and can take professional interest in the patients, but other lay

superintendents can have but little interest in the care of the patients themselves, except in so far as it reflects upon the reputation of the institution and its income. Some may be interested in the housekeeping details, but their main interest lies in its financial affairs.

The same applies to male lay superintendents who are usually only business managers without any authority over the professional activities of the institution. In many hospitals the relationship between the governing board, the medical board and the superintendent is conflicting and so muddled that it is virtually impossible to clear them up without a complete reorganization of the institution. But so long as things are run without too much friction no effort is made to clear them up. There has always been more or less friction between governing boards and medical boards. Medical boards claim the right to select their associates on the board and they have become self-perpetuating. They claim the right to select their assistants and the interns of the institution. The only basis for these claims is tradition and so weak are these claims that in most hospitals when vacancies occur the medical board, acting in an advisory capacity, recommends the physician it wants to fill the vacancy. The actual appointing power rests with the governing board or a special committee of the governing board in a private hospital, and with the Commissioner in public hospitals. But those who have the appointing power rarely reject any one who has been recommended by the medical board. It is only in rare instances that these dissensions come to the attention of the public, but every physician who has been on a medical board knows how often the views of the board and the governing body differ and lead to acrimonious discussion. In one of the public hospitals this self-perpetuation resulted in the existence of a medical board members of which were incompetent to act as chiefs of the divisions. There were several physicians in general practice who, in the hospital, were heads of divisions dealing with medical specialties. A new Commissioner, familiar with the professional status of these men, took a drastic

step in getting rid of them. He discharged the whole board and selected a committee of specialists from other hospitals to recommend members of a new board. This committee eliminated all the incompetent men, replaced them by competent men who had applied for these positions, and also retained some of the old board. The newly appointed board cooperates with the Commissioner and the superintendent of the hospital. In another hospital, the Commissioner and medical board were at loggerheads for some years when the Commissioner, who had the appointing power, actually made use of it by appointing interns without the recommendation and even over the protest of the medical board. In a private hospital, a member of the governing board desired to place his son, a recent graduate, on the medical board. The medical board refused to make a vacancy and the governing board created a new division, taking from an existing division the class of cases that could be transferred to the new division.

The superintendent sided with the medical board and would not send patients to the new division. His resignation was demanded and a more complacent superintendent was appointed. At the next meeting of the medical board the new chief was not invited. At the following meeting he came uninvited and the officers of the board left the room. The governing board then gave peremptory orders to the medical board to make the new physician a member of its board. A number of the board gave notice that they would resign and make public the cause of their resignation. The governing board promptly withdrew its order but there exists to this day between the governing board and the medical board a state of hostile peace. In one hospital members of the medical board demanded certain improvements in equipment, but the governing board needed the money for enlarging the institution and refused to furnish the new equipment. There is, in consequence discontent on the part of the medical board. The trouble is that the status and powers of the medical board have never been clearly defined; and the same applies to the status of the superintendent.

The nursing problem is another one of the difficulties that beset nearly all hospitals. There is an insufficient number of hospital nurses and there is no way of increasing the number except by increasing their pay. It is not possible to get good nurses who will submit to the restrictions of hospital institutional life for salaries of \$20 to \$30 a week, when good nurses can receive \$8 for 8-hour day duty in private nursing and are free from those restrictions. The general complaint among hospital nurses is the harshness of supervisors, who are usually elderly nurses unfit for ward duty. There has never been any question of the physician's authority over the nurses, but there is often a question of authority between the supervisors of nurses and the superintendent, unless the superintendent is a medical man or a graduate nurse. Owing to the scarcity of nurses, this branch of the service has been able to make successful demands for benefits which would not have been granted had there been a plentiful supply. The only way to get a plentiful supply is by paying nurses better salaries. All these difficulties influence the treatment and care of the patient.

There are other questions connected with the treatment and care of patients. Shall paid patients and free patients be treated alike? No distinction is made in public hospitals, but a distinction is made in some of the private hospitals in which patients who pay receive private rooms, special nurses, more frequent medical attention, better food and special privileges. Even in the public hospitals, patients who can afford to have private nurses, usually are allowed that privilege, while those who cannot afford private nurses but require constant attention of the nurse, will receive a special nurse without charge. In some of our public hospitals there are trained attendants who have received some training in the care of patients, but have not received the training of a graduate nurse. These trained attendants are competent to take care of chronic cases and mild cases of disease. Naturally these trained attendants are of a lower type than the graduate nurse. Still they are satisfactory in the

class of cases to which they are assigned. Introduction of such trained attendants in private hospitals would overcome the problems that hospitals must deal with through the shortage of trained nurses. These are but a few of the many problems that beset hospitals, public and private alike. Some of these could be solved by a standardization of hospitals, of plant and equipment, by fixing the status of superintendents, physicians and nurses, by the adoption of standard rules for the government of the institution, including all branches, by dividing the executive activities, placing all medical supervision under the medical superintendent and all nonmedical activities under a lay superintendent. This is a plan that is now being worked out in the New York City Department of Hospitals. In large hospitals the medical superintendent is in supreme charge, but all the lay activities are under the supervision of a lay superintendent. The plan has worked well for many years in Bellevue Hospital and is being tried out in other of the great hospitals. The lay superintendent does not always bear this title. In most hospitals where there is such an official his title is "Steward", but his duties are those of a lay superintendent.

Young women who are not suited to become graduate nurses and still want to do hospital work should be encouraged to become trained attendants. There are 3 schools for trained attendants in the Department of Hospitals, 1 connected with the New York City Hospital for Children, 1 with the Sea View Hospital for Tuberculosis, and 1 in the Neurologic Hospital.

These suggestions are general and cannot be applied literally to all types and sizes of hospitals. In the Department of Hospitals in New York City, there is a rule that the superintendent should visit every ward of his institution daily. This is a physical impossibility in some of our public institutions for we have 1 institution covering 1300 acres of land and about 40 buildings devoted to patients. Even in Bellevue Hospital, in which nearly all the activities are under one roof, it is not possible for the superintendent to make rounds of all wards. These, however, are

exceptional cases. It is not possible to make all hospitals conform to a certain plan of construction, nor to convert old buildings to accord with a standard plan of construction. In all cases like this the "do the best you can" plan must be followed. Uniform rules governing superintendents, defining the powers and responsibilities of the medical board, making like rules for the nursing care could be established. The Department of Hospitals in New York City is now standardizing its 26 institutions along these lines. Rules for superintendents, medical boards, nurses, housekeeping and engineering staffs and all other activities are being standardized. Making identical rules apply to all the employees in each service in all of our hospitals. Where special rules must be made for special types of hospitals, such as communicable disease hospitals, these are added to the general rules, but it is possible under this standardization for the superintendent of one hospital to go into any other hospital and take charge without confusion and without change of duties. The same can be done in private hospitals if the governing boards can be made to realize that the best service to the patients can only be rendered if there is complete absence of dissension and conflict between the various branches.

DISCUSSION

Dr. John F. Hagerty: I imagine, Mr. Chairman, that the last word has not been spoken in the settlement of hospital management. It seems to me that it will be a process of evolution, because hospitals have changed so much and are enlarging and expanding so rapidly that our ideas as to proper management will have to change. What we wonder at now, will seem in a few years, the right thing to do.

In former years it was a comparatively simple matter to manage hospitals because they were, first of all, medical institutions—without the many innovations of the present day. Now, the cost of construction and equipment and upkeep, together with the large personnel necessary, have made the cost of operation very expensive. The wealth of the people too, has increased rapidly in the past few years. They demand comforts and conveniences which were not thought of before, private rooms, with, in some hospitals, rooms for relatives and friends, special nurses and special care, making some hospitals very like hotels.

I have often wondered if it is wise to spend so much money as is being spent on hospital construction. Primarily, they are institutions for the care of the sick and, if fresh air and sunlight, pure water and good food, with proper appliances for dealing with the different medical and surgical ailments, are at hand, that would seem to be

enough. However, they have changed, and because of the many new elements a capable superintendent has become a necessity, and one whose solution should be considered very carefully.

I was interested in the doctor's reference to trained attendants. Even in my student days there were still the remnants of those who cared for the sick in the public hospitals in New York City prior to 1873—because, it was in that year that the first training school for nurses was established in this country. The attendants were prisoners from Blackwell's Island and, when sober, made fair attendants, when not sober, they were very bad. When we contemplate the trained nurses of the present day, we can see how rapidly we have advanced.

Dr. Charles H. Schlichter: I can understand the attitude of the leaders of the nursing profession. They have the training of the nurse at heart, and I know how important they feel it is, but they are going too far with the theoretic part of the nurse's education. They must stop and realize that the first duty of the nurse and the doctor is to the patient, and to the patient should be given most of the time that the nurse spends in the hospital. I am just old-fashioned enough to believe that practical demonstration and experience, mixed with a moderate amount of theory, will produce the best nurse. After all, it is not always how much the nurse knows of science, but how much heart she puts into her work that counts in the final result.

The question of the smaller hospitals training nurses is one which requires serious consideration. Personally, I believe we should reduce the time the nurse spends in the hospital, make her education more practical, take out of the curriculum some matter with which it is now cluttered up, and give us again the nurse well trained in the practical and efficient care of the sick and with a heart for her patient. This we are not getting today. In some quarters hospitals are looked upon primarily as places to train nurses and not as institutions for the care of the sick. The pendulum has swung too far in this direction. If a young woman cares to go on for the so-called higher branches in nursing, then let it be so arranged that she can take a post-graduate course in some hospital which is equipped to give it.

The training schools in this vicinity have to keep up with the so-called New York standard. I think New Jersey is big enough to set a standard of its own and I believe the time has come for the hospitals of Northern Jersey to get together by appointing representatives to a conference to be held under the auspices of this Academy. At such a conference the hospital problems which have been presented here this evening could be thoroughly gone into, not only the nursing problem but the others that have been discussed. If we can get together in this way we can make our hospitals better places for the care of the sick and incidentally turn out better nurses.

Dr. E. J. Ill: This is a complex problem and I feel that I am in another generation, as Dr. Hagerly pointed out. This question of the doctors and the nurses must be settled in some way. And in doing, so we must think that the first consideration is the patient.

A poor woman came to my office some time ago with an acute cholecystitis. I advised her to go to the hospital, and she said that she had been to hospitals but they would not admit her because she could not pay \$3 a day. Now we know that this is a mighty bad spirit. Why is it so? There is too much top-heaviness about the whole

thing. In most hospitals the number of nurses is too great. This poor woman said, "Hospitals are for the rich, not for the poor".

I have been in practice since the time when we had untrained women to look after our patients. When a new one came, she was made perfectly competent to do all that I wanted in about 6 months' time. Today there is too much mental training and too little bedside work. The overhead comes right in here. Say, for instance, you have a corridor of 10-12 beds, 1 nurse ought to be able to care for 3 patients unless there is an acute emergency.

Then comes the difficulty between the superintendent of the hospital and the nursing staff. In nearly every hospital he is under the control of the supervisor of nurses, for in order to keep peace he will take the easier path. Extravagance of present day hospitals is astounding, but I suppose the people want it so.

Dr. F. R. Haussling: I agree with Dr. Ill that the hospital situation has become very complex. In this community where we have semi-private hospitals and a City Hospital, this holds good. I think that in the semi-private hospitals there should be 3 departments on an equal footing, with a head over each department who is supreme in that department but who is responsible to the Board of Directors of the hospital. These departments should be divided as follows: Hotel Department, Medical Department, and Department of Nursing.

It seems to me that this arrangement works out best for semi-private institutions: The doctor should be supreme in the care of the sick; the director of nurses supreme in her department; and the hotel management, supreme in its department. Of course, unless there is a perfect spirit of coöperation of the 3 heads, it does not function so well.

The hotel management is becoming quite a problem. Some of the institutions have become very luxurious, but then this is an age of luxury and the people demand this sort of hospital.

In the city of Newark, with its many new hospital buildings, the old ones still left are compelled to improve to compete with those having more modern physical equipment, otherwise the patients will go to the finer hospital structures. I agree with Drs. Ill and Hagerly that to do good work and give the patient first consideration, we do not need these large hotels, but, patients demand them. In simpler structures, patients can be cared for just as well.

In a municipal hospital, it is somewhat different. It must have one supreme head of the entire hospital; one who figures the budget and keeps expenditures within it, for with complete responsibility must go complete authority.

Dr. P. DuBois Bunting: The new hospitals are rather palatial. The rooms, beds, heat, sunshine, food, etc., satisfy the patients. The service often does not. Too often the nursing is insufficient and inefficient. The hospital is for the patients. Only when the patients receive all they should is it good for the doctor. Nursing is the major problem; that and finances.

Dr. Max Danzis: In discussing the modern cost of hospital upkeep and the cost of construction, we are apt to overlook one thing and that is that modern hospital expenditures are simply in keeping with the general modern cost of living. The people today demand that hospitals be more modern and better equipped. They surely are not satisfied with the old antiquated and poorly constructed hospitals any more than they are pleased

with the old-fashioned dwelling. Living conditions of the middle-class people and working men of today cannot be compared with conditions that existed 15 or 20 years ago. People of moderate circumstances at that time were satisfied with very simple hospital facilities. Today, hospital construction must be in keeping with the demands that the public is making for what it calls ordinary comforts, that are at least comparable to what one finds in the modern middle-class dwelling.

You all know that there are 3 organizations that are constantly demanding better service and more modern facilities from the hospitals, and better service also carries with it considerable increase in expenditures such as clinical and x-ray laboratories, etc. Organizations such as the American College of Surgeons, American Medical Association, American Hospital Association do not stop only with advocating these improvements to the hospitals directly, they very frequently warn the public that good medical or surgical treatment can only be obtained at institutions that are equipped with all modern facilities and conducted in an efficient manner. The nursing organizations demand that nurses' homes be equipped with fine classrooms and recreation rooms. They demand individual rooms for every nurse. Homes of this character are more expensive in construction and maintenance than formerly.

When we were planning our hospital and our nurses' home, we submitted our plans to the nursing organizations in this city and in New York. We felt that we had planned a home that ought to be adequate for that purpose. We received word from the nursing authorities that certain changes must be made in construction before they would sanction the building as being in keeping with their idea of what a nurses' home should be. We thought that some of the suggestions were rather unreasonable, but still the changes were made. All this adds to the cost of hospitals.

The per capita cost of maintenance is constantly going up. This is not confined to any particular locality or any isolated cases. It is a condition that prevails all over the country. Attempts are made to provide hospital maintenance for the middle-class men but even then they are providing for a substantial deficiency that may be incurred every year and special funds are provided for that purpose. Recently, one such institution has been established in Boston, where a special fund of \$150,000 was provided to cover a deficiency that will be incurred during the next 3 years, and with all that the charge for a single private room will be \$6 per day; semi-private charges range from \$4 to \$5 per day. The charges in most of the hospitals in this city or elsewhere, of semi-private or even private rooms, are not any higher. So no matter how we look at it, modern hospital expenditure cannot be brought down to much lower than it is at present, anymore than living conditions can be reduced to the old status.

Something should be done with the nursing problem. Personally, I believe that the nurse's work is very arduous and taxing, that her hours are very long. A good deal of the work that the nurse is doing certainly could be done by one who does not possess a nurse's training. If it could be arranged that hospitals should employ nurses' aides to do the ordinary menial work the situation would be much relieved. There should be a definite proportion of nurses' aides to the number of nurses. These aides should receive some practical training in nursing without any theoretic

instruction. If the hospitals could get together and formulate a plan to be submitted to the nursing bodies for their consideration and ask their coöperation, I am sure that a substantial reduction in the nursing expense could be obtained without in any way interfering with the course of training that the modern nurse receives.

Dr. J. B. Morrison: I desire to say a few words in defense of our nurses and to express some opinions about their training. In justice to our present day nurses, if you will compare the death rate in the hospitals in New York and Massachusetts 50 years ago and today, the entire credit for the vast improvement is not all due to the medical profession. Do not forget that you see your patients in the hospitals a few minutes once or twice a day, and that all the rest of the time they are under the care and observation of the nurses. It is usually the watchful eye of the observant well-trained nurse that summons the intern or the attendant when needed. I do not agree with Dr. Ill that a nurse can be trained sufficiently in 6 months to be all we have grown to expect and demand of a nurse. I agree that they are now being over-educated. We have discussed every aspect of the nurse problem in our Tristate Conference, composed of the Officers and Editors of State Medical Societies in the states of New York, New Jersey and Pennsylvania, representing 25% of the physicians in the United States. The consensus of opinion was expressed that hospitals should not exist for the training of nurses. The keynote phrase of hospitals is "service to the patient". So far as the training of nurses is concerned, in many of our large hospitals this is not the first object. Not that the nurses are habitually negligent but that too much time and effort is laid upon their education. See the instance referred to by one of the speakers that the entire operating schedule in one of our large hospitals was upset last week by having 4 or 5 pupil nurses taken off the floor without substitutes in order that they might attend class. In another one of our hospitals the service is crippled by the fact that a great many of the senior pupil nurses are taking their contagious disease training in associated hospitals at one time and our service suffers. So the patients suffer and the whole service suffers by this shortage.

It was the opinion of our Conference that 2 years was sufficient for the training of any nurse, so far as her usefulness to the patient and the hospital was concerned. If she wishes to secure a higher education or greater training it should be taken up in post-graduate work. The solution lies in coöperation of all the hospitals in the state in an effort to work out a plan whereby nurses can be trained without these serious inconveniences to the hospital and the patient. It can be done if it is given the proper degree of thought and application. The profession was asleep in New York and in New Jersey when the laws regulating the training of nurses were placed on the statutes. It will be necessary in a long series of conferences for the profession and the hospitals and nursing interests to work out a solution. Otherwise, the tail will continue to wag the dog.

The cost and maintenance of hospitals are constantly rising. This is largely due to the demands of a public which can now afford to pay more for hospital care than in the past. This public demands better quarters, more elegant equipment, better care; and its members go to the hospitals which today are able to furnish these things.

The time is coming, in my opinion, when even semi-private hospitals will be forced to combine or to at least have common grounds and more economically administered plants. The people who furnish the funds both for the erection of the buildings and the maintenance will insist on more economy, less overhead and less unnecessary waste. Hospital construction should be standardized and so should the equipment. If this were properly done the cost as we find it at present could be cut 30%.

Plans must be modified to provide the greatest possible floor space for patients. When the space given to administration is 50-60% of the entire floor area, no wonder the overhead is great and the overhead and deficit will increase from year to year. With this increase goes the effort to secure the greatest income that the traffic will bear. The principle should be the very opposite, the least possible income that patients can provide measurable to their incomes.

I am reminded of a remark that was made by one of the members of the Committee on the Cost of Medical Care. This member is an industrial magnate whose name is a household word. He said in part: "If the medical profession cannot see to it that the average patient shall secure adequate hospital service and medical care at a price that he is able to pay, we will see that this is done." What is the inference? State Medicine, with state controlled hospitals.

Reference has been made to the lack of cooperation between boards of trustees and medical boards. There should be no such lack of common interest and copartnership. We have seen one of the largest and most modern hospitals in New Jersey grow up from a single frame building in 17 years. It is controlled by a lay board of trustees on which the representative of the medical staff sits with voice but without vote. The trustees gave to the medical board complete control of the medical and surgical policies of the hospital. No appointments are made to the Staff without the advice and approval of the medical board. There is, as there should be, no friction. In all matters discussed at the meetings of the trustees where it is necessary to hear the opinion of the staff, that is given by their representative. Where a purely business plan is outlined by the trustees this may later be modified after the staff representative has been heard. These keen, purely business men, have the welfare of the patients at heart just as keenly as have the physicians. They see to it that every facility possible is placed at the disposal of the staff. They visit every department of the hospital, even mingling with the visitors, hearing comments. The coöperative plan of operation among the trustees, the medical board, heads of departments, supervisors, committees, is being worked out for the benefit of the patient.

There is a wide place in all our meetings and discussions for such papers as that presented tonight. If the profession would escape much of the criticism of today, these problems of hospital construction, hospital management, education of nurses, care of patients and cost of medical care must be solved.

Dr. I. Nascher (closing): Several have spoken of the high cost of the palatial institutions, and the fact that they are not put up for the common people. I was speaking for general hospi-

tals. I might tell Dr. Ill that our public hospitals in New York are intended for the poor. An investigation is made into the financial condition of those admitted, and very rarely do patients who *can pay*, refuse to pay their bills. The hospital is free to the poor, but if the patients are *able to pay*, they must pay. There are no private rooms—all of the patients are treated alike whether they pay or not, but if their circumstances are such that they can pay something for their care in the hospital, they are required to do so—if not, there is no charge. In the case of emergencies where patients are taken to the nearest hospitals; those hospitals receive from the city \$3 a day for every emergency admitted.

Dr. Hagerty spoke of prisoners as trained attendants; in writing a history of Bellevue, I came upon quite a lengthy article on the prisoners. The laws of New York now forbid prisoners to be used as attendants in New York Hospitals.

If you will pay nurses enough, you will be able to get good nurses, but if only a pittance is allowed for the nurse, you cannot get good ones. Where a supervisor gets say about \$120 a month, you cannot get the same class of nurse or kind of nurse as the private nurse who gets \$8 for 8 hours a day, while in the hospital they get but \$2 to \$4 a day and put up with restrictions that they do not have elsewhere. I believe the solution is to get trained attendants (not prisoners) and pay the supervisors a good salary.

Another question brought up was that about trained nurses being over-educated. There is a movement on foot in New York at the present time to lower the exaction in regard to nurses in order to attract more nurses to the training school.

Concerning the question of construction—I tried to impress that there should be a standardization of hospitals; and if there is something new coming along, that all hospitals introduce it just as they did years ago when Bellevue introduced ambulance service. Bring about a standardization—not one that will be set forever, but as conditions improve, raise the standards.

Every medical superintendent should be a member of the medical board. Nurses are the servants of physicians to carry out physician's orders. Dr. Ill spoke about the ratio of 1 nurse to 3 patients. Some hospitals have but 1 to 8, but 1 to 3 or 3½ is a fair proportion for the proper care of ward patients.

The workman today, of course, looks for more comfort in hospitals, as well as in the home, than the workman of a generation ago. If able to pay for it, he will demand the best. If he cannot pay for it, he expects a certain amount of good care anyway. If he knows he can get just as good care in a hospital that does not have marble floors he will be satisfied. Most modern hospitals in another decade will have a uniform standard and creep up as there is progress.

The basic fault which leads to the difficult problems in hospitals, is foolish competition. Wise coöperation, with a sincere effort to standardize activities and institutions, will simplify the problems and benefit doctors and patients alike. A speaker said something about conferences of hospitals—good. Hold conferences but let the purpose be altruistic, not antagonistic and selfish. Coöperation, not competition, will elevate the character of your institutions and their activities.

AURICULAR FIBRILLATION; PROGNOSTIC CRITERIA

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LOUIS LEVIN, M.D.,

Trenton, N. J.

That auricular fibrillation is, as a rule, evidence of a badly damaged auricular myocardium is an accepted fact. That it is not necessarily a finding of grave significance, of serious prognostic importance, is also gaining acceptance among physicians. Indeed, as early as 1915. Pardee had stated that an arrhythmic heart does not always incapacitate the patient. This subject has not been given the attention due it and prognostic criteria have not been advanced as having consistent reliability. The case records of 33 patients with auricular fibrillation have been examined to see what factors could be classed as possible prognostic criteria. These will be discussed later.

The prognosis of auricular fibrillation should be defined as the foretelling of the future health of the patient with this arrhythmic enlargement, response to digitalis, and sinus rhythm is reestablished. Many patients feel no better with normal rhythm than without it. The prognosis is not of the fate of the abnormal mechanism but of the fate of the patient and, what is more important, of the comfort of the patient. It is with the prognosis of the patient's comfort that this paper is particularly concerned.

The various factors chosen for study included length of time the abnormal mechanism had been established, etiology, degree of cardiac enlargement, response to digitalis, and possible complication of the situation by the presence of acute and chronic infections and noninfectious intoxications. The cardiac reserve was considered. This, however, is not easily measured and should be translated into more definite terms capable of clinical evaluation. Coffen, in an excellent paper, stated that "the prognosis depended on the sum total of symptoms and signs which indicate cardiac function". The prognosis, whenever possible, should be delayed until after several days of medication have elapsed.

Thirty-three cases are tabulated below (Table 1). Several are described in detail to illustrate definite statements. The criticism of a paucity of material may be directed against the conclusions reached in this paper with perhaps some justification, but in refutation it may be said that the unity of the findings is such that not to publish them would be the greater error.

LENGTH OF TIME

It became at once obvious that the length of time the abnormality of mechanism had been present was not important. Cases No. 16 and 25 serve as illustrations:

Case No. 16. H. L., a female child, aged 15 years, was examined September 4, 1927. She had her first attack of rheumatic fever at the age of 4 years. Her parents were told at that time that she had heart disease. Since then she has had 5 additional attacks and chorea has been present almost constantly for the past 7 years. Tonsillectomy was performed at the age of 10 years. In spite of the frequent attacks of infection she has been in fairly good health, and recently has been working as a salesgirl. This afternoon, while at work, she noticed that her heart began to beat rapidly and irregularly. She was certain of the time of onset of the tachycardia.

The important factors in the physical examination were a totally irregular ventricular rate of 160 and a pulse rate of 112; blood pressure 86/28; a total transverse diameter of 15.5 cm.; systolic and diastolic murmurs at the apex and a diastolic murmur heard over the lower part of the sternum.

It is evident that the irregularity developed the day of the examination. However, the prognosis was recorded as poor; this was based upon the size of the heart. The response to medication could not be determined as the patient disappeared from observation.

Case No. 25. Mrs. M. R., aged 49 years, was examined September 15, 1925. She knew that her heart had been damaged for several years. The past history was not definitely positive for rheumatic fever, but there was a history of frequent sore throats. Until recently she had no complaints except some shortness of breath on exertion. For about 3 days previous to the examination she noticed a gradual increase in the heart rate, a throbbing in her neck when she stooped over and some swelling of the ankles.

The important physical findings were: total arrhythmia with a ventricular rate of 150 per minute; systolic and diastolic murmurs at the apex and a diastolic murmur over the second left interspace; total transverse diameter of 13.5 cm.; moist râles at the bases and some edema. Rapid digitalization quickly brought the ventricular rate down to 76 and the signs of heart failure disappeared. She has been seen at intervals since then, the last examination having been made No-

TABLE 1—TABULATION OF CASES

Case No.	Etiology	Degree of Enlargement	Response to Digitalis	Prognosis	Remarks
1.	Cocain susceptibility	None	Good	Good	No previous heart disease. Fibrillation followed use of drug. Normal rhythm returned within 24 hours.
2.	Food susceptibility	None	None used	Good	No previous heart disease. Fibrillation followed an attack of nausea and vomiting. Recovered in 12 hours.
3.	Rheumatic fever	Moderate	None used	Good	Normal rhythm followed trial dose of quinidin sulphate.
4.	Thyroid disease	Moderate	Good	Good	Normal sinus rhythm followed removal of thyroid. Patient has had no cardiac symptoms since.
5.	Thyroid disease	Marked	Slow; large doses required*	Poor	Fairly good health with normal sinus rhythm 2 months after thyroidectomy.
6.	Rheumatic fever	Moderate	Good	Good	In good health and working.
7.	Rheumatic fever	Marked	Good; but requires large doses*	Poor	Comfortable only when at rest.
8.	Rheumatic fever	Marked	Poor	Poor	Comfortable only when at rest.
9.	Arterio-sclerotic	Moderate	Good; but requires large doses*	Good	Comfortable. Works as a teacher. Persistent bilateral edema.
10.	Arterio-sclerotic	Moderate	Slow; requires large doses*	Poor	Has had 2 failures within a year.
11.	Rheumatic fever	Marked	Slow; requires large doses*	Poor	Sudden death 8 months later. Pulsus bigeminus with ventricular rate of 100 was the best result obtainable.
12.	Influenzal (?)	None	Good	Good	Good health. Working. Small doses of digitalis are sufficient.
13.	Arterio-sclerotic	Moderate	None used	Poor	Ventricular rate is 80. Inverted T1 and T2 and symptoms of coronary disease affect prognosis. Not followed.
14.	Rheumatic fever	Marked	Slow; requires large doses*	Poor	Never entirely edema-free (until recently). Maintenance dose 5 gr. daily. Can do very little work.
15.	Thyroid disease	Moderate	Slow; requires large doses*	Poor	T2 inverted. *Surgery refused. Not in good health. Ventricular rate varies between 90 and 100.
16.	Rheumatic	Marked	Not followed	Poor	Ventricular rate 160 on first examination. Present condition unknown.
17.	Rheumatic fever	Moderate	Good	Good	Good health after 2 years.
18.	Rheumatic fever	Marked	Slow; requires large doses*	Poor	Cardiac function not satisfactory. Daily maintenance dose about 5 gr.
19.	Rheumatic fever	Marked	Good	Poor	Complicated by chronic glomerulonephritis and hypertension. Cardiac symptoms on exertion.
20.	Rheumatic fever	Marked	Poor	Poor	Died one week after examination of acute bacterial endocarditis.
21.	Rheumatic fever	Marked	Poor	Poor	Died shortly afterward of acute fibrinous pleurisy and pulmonary edema.
22.	Arterio-sclerotic	Marked	Poor	Poor	First seen in cardiac failure. Not traced since.

Case No.	Etiology	Degree of Enlargement	Response to Digitalis	Prognosis	Remarks
23.	Rheumatic fever	Moderate	Good	Good	Patient is in good health and active. Maintained with moderate doses of digitalis.
24.	Rheumatic fever	Slight	Good	Good	Patient is in good health. Works in comfort as a charwoman.
25.	Rheumatic fever	Moderate	Good	Good	Patient improved for 1 week, followed by sudden death. No autopsy. Cerebral embolism assumed.
26.	Rheumatic fever	Marked	Slow	Poor	A rate of less than 100 was not easily maintained. Died shortly after becoming insane.
27.	Rheumatic fever	Marked	Slow; requires large doses*	Poor	Still alive 2 years later, but not in comfort. Unable to work.
28.	Rheumatic fever	Marked	Poor	Poor	Comfortable only when at rest. Died within 1 year.
29.	Rheumatic fever	Marked	Poor	Poor	Died of pneumonia (first day).
30.	Lues	Marked	None used	Poor	Chronic glomerulonephritis complicates the prognosis. Condition not good 6 months after.
31.	Arterio-sclerotic	Moderate	Good	Good	Comfortable, after 18 months.
32.	Rheumatic fever	Moderate	Good	Good	Glomerulonephritis and secondary anemia complicate the prognosis. Comfortable 3 months after.
33.	Rheumatic fever	Moderate	Good	Good	Comfortable and doing housework 4 years after first examination.

*To maintain the ventricular rate under 100.

vember 18, 1929. Her condition has remained unchanged. The cardiac dulness area has not increased in size. She has been working as a charwoman with no discomfort.

It is impossible to accurately determine the date of onset of the arrhythmia in the second patient. There is no doubt but that it was present for several days at least before the examination. The recorded prognosis was good years ago and continues because of only moderate enlargement and because of good digitalis response. The length of time the fibrillation had been established was not listed in the table below because it was evident there was no relationship to the prognosis and because it was not always easy to determine the onset of the arrhythmia.

ETIOLOGY

The rheumatic fibrillator is neither more likely nor less likely to live uncomfortably than the arteriosclerotic fibrillator. Of course, since the latter group occurs in older individ-

uals than does the former it is evident that an investigation to discover the percentage of patients living at the end of a period of years will favor the rheumatics, which would be misleading, for such an investigation would determine the prognosis of age and not of auricular fibrillation. Yet each type of fibrillation carries with it the especial hazards that may be expected with each etiologic factor. The prognosis of a rheumatic fibrillator is influenced by the etiology only as regards the presence of active rheumatism. The arteriosclerotic need not fear the cause of his fibrillation provided no vascular accidents occur. Removal of the thyroid removes the etiology of the thyroid fibrillator from further consideration.

Etiology was included in the table in order that a more complete record of each patient might be had. The cases were divided as to etiology as follows: rheumatism (chorea, tonsillitis, and rheumatic fever) 21; allergy

(cocain susceptibility 1, and food susceptibility 1) 2; influenza 1; lues 1; arteriosclerosis 5; thyroid 3; a total of 33.

Because of the unusual etiologic factor in this patient the following case is reported:

Case No. 1. M. K., aged 45 years, a professional man, was examined August 9, 1929. His complaint was an irregular heart beat present for about 12 hours. The past history was negative except for an attack of acute nephritis 5 years ago, followed by a complete clinical and laboratory cure. About 24 hours prior to this examination he had gotten a foreign body in one eye. The following morning an oculist treated him and finding an ulceration touched it up with silver nitrate and instilled a few drops of 4% cocain hydrochloride solution into the conjunctival sac. Within 15 minutes the patient was conscious of a rapid, irregular heart. He had no other symptoms.

The essential points in the physical examination were: ventricular rate of 136 and a pulse rate of 112; total arrhythmia; blood pressure 100/60; total transverse diameter of 12.5 cm; heart sounds strong and without murmurs. Rapid digitalization was followed by a good response. Normal sinus rhythm returned within 24 hours and the digitalis was stopped. When seen one week later the only abnormality noted was an occasional premature contraction.

Because of the patient's previous good health, the absence of positive physical findings, and because of the onset of fibrillation immediately following the absorption of cocain hydrochloride, the diagnosis of cocain susceptibility as the cause of the arrhythmia was rational.

DEGREE OF CARDIAC ENLARGEMENT

This one of the criteria is particularly reliable in reaching a prognosis. It is likely that the degree of cardiac enlargement may serve us as a substitute for the indefinite cardiac reserve. It is admitted that an arteriosclerotic heart may not show much enlargement and may show less cardiac reserve (or rather less cardiac ability to work) than the greatly enlarged rheumatic heart. Yet, in spite of exceptions of this kind, Table 1 indicates that the patient with a markedly enlarged heart has a worse prognosis than the one with but little enlargement, irrespective of etiology.

What constitutes slight, moderate, or marked enlargement of the heart? For clinical purposes a physical examination serves the physician to a greater degree than does the radiograph. Arbitrarily, the heart that shows a well marked precordial heave but whose

total transverse diameter on percussion is not above normal, has been designated as a heart with slight enlargement. The moderately enlarged heart has a transverse diameter above normal but less than 15.5 cm. in the female and 16.5 cm. in the male. Above that point marked enlargement is present. These figures are for the average sized individuals, it being recognized that extremes or malformations in physique do not permit themselves to be classified in well defined groups.

The 2 following cases serve as examples of the above, the first (case No. 12) indicating the good prognosis to be expected from a heart not greatly enlarged, and the other (case No. 14) being an illustration of the poor outlook that accompanies a markedly enlarged heart:

Case No. 12. H. H., a white male, aged 46 years, was examined Mar. 12, 1929. His chief complaint was weakness after being out of bed for a few hours. Past history was negative for the rheumatic affections. The only serious illness was influenza in 1918. He had enjoyed good health until about 1 month prior to this consultation at which time he developed a "cold", and 2 weeks later he went to bed because of grippe, but remained in bed for only 4 days. His doctor told him that his heart was diseased. He then recalled that another physician had informed him 3 years before that he had an erratic heart. He stated that he was moderately dyspneic on exertion, could not sleep, and tired easily. He had no palpitation and no cough.

The important physical signs elicited were: ventricular rate of 108; pulse rate of 104; total arrhythmia; blood pressure 142/80; infected tonsils; total transverse diameter of the heart 14 cm. and no precordial heave; systolic murmur at the apex; and no signs of cardiac failure. The patient responded to digitalis medication promptly. Six months later he was in excellent health and working. His maintenance dose of digitalis is comparatively small—2 1/5 gr. daily.

Because of the comparatively small heart and because of the rapid response to digitalis the prognosis was recorded at the time of examination as good.

Case No. 14. M. K., a white female, aged 57 years, was examined July 2, 1928. Her chief complaints were shortness of breath and swelling of the legs. She had suffered 3 attacks of rheumatic fever. During the last 2 years she had several periods of cardiac failure; when first seen she reported some circulatory failure for about 2 months. This history indicated that, for short intervals excepted, the patient had been a cardiac invalid and decidedly uncomfortable for 2 years. The usual symptoms of failure were present—dyspnea and at times orthopnea, swelling of the legs, cough, insomnia, etc.

The physical findings were: ventricular rate 120

and pulse rate 64 (no pulsus bigeminus); blood pressure 160/110; precordial heave; total transverse diameter 16 cm.; systolic and diastolic murmurs at the apex; enlarged liver; bilateral pretibial edema; and râles at both bases. Large doses of digitalis were required to correct the failure. That it was not entirely corrected can be seen by the fact that edema persisted until April 1929. Since then she has been edema-free but is able to do very little work about her home. Her daily maintenance dose of digitalis is about 5 gr.

The recorded prognosis was poor as to comfort and ability to resume her former duties. This was based upon the large heart and the poor digitalis response.

It may be said that in this last case prognosis of the fibrillation was complicated by circulatory failure due rather to failure of the entire myocardium than merely to the arrhythmia. That may be true but, irrespective of the cause of the failure, a prognosis must be given. Aside from illustrating criteria, this case also points out the definition of the prognosis of patients with auricular fibrillation. It describes the character of the patient's comfort following the initial examination rather than describing the course of the arrhythmia. This definition can not be said to apply to all cardiac patients for, irrespective of the rhythm, the fibrillation does bring into consideration certain factors peculiar to itself that do not enter into other types of heart disease. Among these factors may be mentioned as the more prominent the problems associated with digitalis medication and the presence of urgent symptoms and signs without immediate heart failure.

RESPONSE TO DIGITALIS

In the estimation of a patient's response to digitalis medication the rapidity with which the ventricular rate approaches normal and the size of the maintenance dose are both considered. Assuming that a standard method is used in arriving at the dose needed for the rapid digitalization of a given patient, the approximate time required for completion of this procedure may be calculated. A *slow* response is noted when the allotted time is passed without producing the expected results. If amounts of the drug larger than the calculated dose are needed, this too may be

called a *slow response*. Most patients with fibrillation who require more than 4½ gr. digitalis daily may be said to have a *comparatively high* maintenance dose. Again, if it is noted that increasingly sized doses of digitalis are required as time passes, this too may be said to indicate a *poor response* to the drug.

Cases No. 12 and 14 illustrate this prognostic point. The former patient is comfortable and working with a maintenance dose of 2 1/5 gr. daily while the latter is not in good health and is not working, with a daily dose of 5 gr.

ASSOCIATED PATHOLOGIC CONDITIONS

This is rather obvious. Acute infections, particularly the continued activity of the etiologic infections, influence the prognosis adversely. Chronic or focal infections, nephritis, diabetes, marked arteriosclerosis, cerebral vascular disease, thyroid intoxication, coronary disease, and hypertension, likewise are complicating factors. It may be said that eventually very few patients with persistent auricular fibrillation escape one or more of these complications. That is true, yet it is an important point and must be considered.

SUMMARY

Table 2 shows that 14 patients were given favorable prognoses and 19 unfavorable. Of the 14, we have 13 comfortable, while 1 has died. Of the 19 given unfavorable prognoses 1 is comfortable, 9 are uncomfortable, 5 are dead, and 4 have been lost to observation.

CONCLUSIONS

The prognostic criteria which may be considered reliable in auricular fibrillation are the degree of cardiac enlargement, the response to digitalis medication, and the presence or absence of complicating pathology.

This prognosis should concern itself with the probable comfort of the patient and not with the probable fate of the abnormal mechanism.

TABLE 2.

PROGNOSIS		PRESENT CONDITION				
Case No.	Good	Poor	Good (comfortable)	Poor (uncomfortable)	Dead	Unknown
1.	X		X			
2.	X		X			
3.	X		X			
4.	X		X			
5.		X	X			
6.	X		X			
7.		X		X		
8.		X		X		
9.	X		X			
10.		X		X		
11.		X			X	
12.	X		X			
13.		X				X
14.		X		X		
15.		X				X
16.		X				X
17.	X		X			
18.		X		X		
19.		X		X		
20.		X			X	
21.		X			X	
22.		X				X
23.	X		X			
24.	X		X			
25.	X				X	
26.		X		X		
27.		X		X		
28.		X			X	
29.		X			X	
30.		X		X		
31.	X		X			
32.	X		X			
33.	X		X			
Total	14	19	14	9	6	4

MEDICAL ASPECTS OF PEPTIC ULCER*

SYDNEY WEINTRAUB, M.D.,

Chief of Department Gastro-Enterology

Cornell Clinic,

New York City

Few diseases arouse such differences of opinion regarding treatment as does peptic ulcer. At one time the surgeon believed the treatment belonged wholly to himself. Today, purely medical treatment has many adherents and some surgeons are becoming even more conservative than the medical men themselves. The pendulum swings back and forth, to the bewilderment of doctors and patients. In this paper, I shall try to formu-

late my impressions after directing the treatment of about 10,000 ulcer cases.

In the first place, we must look upon peptic ulcer as a chronic disease for which the exact causative factor is still unknown, and consider the ulcer itself as a manifestation of this disease. Until the exact cause is known, there necessarily must be controversy as to the best method of treatment. We cannot see how dietary regimens and elimination of focal infections can be considered the method of choice; neither can the same be said of surgery. In the present status of our knowledge, the ulcer patient benefits mostly by a combination of these methods.

At the Cornell Clinic, the gastro-enterologist, roentgenologist and surgeon combine their efforts in the treatment of ulcer and, in this way, we believe a sane, middle course is being followed.

Each patient with an ulcer presents an individual problem and his treatment depends upon the following factors. (1) Location and size of the ulcer. (2) Duration of symptoms. (3) The economic and social status of the patient.

Before discussing these factors let us consider an ideal course of medical treatment. In the first place, the patient should be put to bed for 3 weeks on a Sippy or Lenhartz diet; then placed on an ambulatory regimen. Now let us follow a moderately severe ulcer case through 24 hours of this ambulatory treatment:

6:45 a. m. Olive oil	1:00 p. m. Alkalies
7:00 a. m. Breakfast	3:00 p. m. Milk
7:30 a. m. Tr. belladonna	4:00 p. m. Alkalies
8:00 a. m. Alkalies	6:45 p. m. Olive oil
10:00 a. m. Milk	7:00 p. m. Dinner
11:00 a. m. Alkalies	7:30 p. m. Belladonna
11:45 a. m. Olive oil	8:00 p. m. Alkalies
12:00 Noon—Lunch	10:00 p. m. Milk
12:30 p. m. Belladonna	11:00 p. m. Mineral oil

One may say that there are 18 maneuvers in the daily routine of an ulcer patient, and this must be continued from 6 months to 1 year. The alkaline powders and the belladonna can be gradually discontinued after 3 to 6 months but the frequent feedings are necessary for 2 years.

Now let us suppose the patient is a long-shoreman who depends on cheap restaurants

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and boarding-houses for his meals, who cannot get his milk at 10 a. m. and 4 p. m., and who never heard of a creamed puréed soup; is it not wiser to advise immediate surgery for this type of patient? It has been our experience that these patients either cannot or will not adhere to a strict dietary regimen. Many work in factories where they are unable to take their milk and alkalies between meals; and others cannot afford the luxury of sweet cream, milk and eggs, called for on the average ulcer diet. This type is sent to the surgeon within 3 months if improvement is not apparent.

Another group for which we do not hesitate to recommend surgical treatment embraces patients with a history of 10 to 20 years' duration and who, as Dr. W. J. Mayo puts it, have been through "9 complete and permanent medical cures". These ulcers are usually indolent and cicatrized and nothing can be gained by temporizing.

In the last analysis, however, the type of treatment of peptic ulcer depends mainly on the location of the lesion. First let us consider uncomplicated ulcers of the duodenum; those which do not bleed or obstruct. They comprise by far the largest group of peptic ulcers, for we see 20 duodenal ulcers to 1 gastric. The treatment consists of a soft, bland diet with frequent feedings, alkalies and belladonna, and also the elimination of foci of infection. The teeth and sinuses are x-rayed and the tonsils examined by specialists. Most patients show marked improvement at the beginning of this treatment but recurrence of symptoms at the end of 6 to 12 months is the rule and not the exception; it is true that the recurrent symptoms are usually milder in character but, nevertheless, they recur. And this cannot always be blamed on indiscretions in diet, worries, mental shocks and inclement weather. Much to the discouragement of the physician and patient, there exist influences concerning which we have no control nor knowledge.

This has also been the experience of other clinicians. Emery and Monroe, of the Peter Bent Brigham Hospital, studied a large number of peptic ulcers and arrived at the following conclusions: That there was practically

no difference in the results between the patients who followed a strict dietary regimen and those who did not; that peptic ulcer is a truly chronic disease for which no real cure is known. And this, we regret to say, has been our experience for the past 10 years. The actual cures of duodenal ulcer that we have seen, have been very few. We are sorry that we cannot give statistics as to the number of cures, because, as you know, the ulcer patient is "notoriously of a wandering disposition and goes from one physician to another in search of a cure". Failure of the patient to return cannot be regarded as evidence of cure. Ulcer patients should be watched for at least 5 years before any conclusions are formulated.

In this connection, we shall digress for a moment and relate our attempt to follow up a series of ulcer patients who had not been seen for 5 or more years. Of 100 to whom letters were sent, only 5 responded. It is needless to say that a further study was not attempted, but the 5 patients who did return gave us considerable food for thought. Two of these, with diagnosis of duodenal ulcer, were operated upon elsewhere and were free from symptoms. Two others had shown at their first examination pyloric ulcer with obstruction and 24-hour gastric retention; 5 years later both showed the same amount of obstruction and retention, but both claimed that they were doing very nicely and refused operation. The fifth, a man of 50, had shown at the first examination a large penetrating lesion on the lesser curvature of the stomach. The size of the lesion, absence of free hydrochloric acid, and age of the patient led us to make a diagnosis of carcinoma. He had refused operation and vanished from the Clinic. The examination 5 years later revealed a perfectly normal stomach.

We often wonder how the other 95 patients have fared!

Another observation concerning the healing of duodenal ulcers has appeared strange to us. We know that a chronic duodenal ulcer heals by scar formation and that the scar produces an irregularity of the bulb when seen radiographically. Why, then, do we

rarely see a patient with a defective bulb who has no ulcer symptoms? Although we radiograph about 3000 patients a year, we do not see more than 2 or 3 with defective bulbs from whom we cannot elicit an ulcer syndrome. We can only conclude that duodenal ulcer rarely heals. Therefore, when a patient starts his medical treatment he should be warned about the recurrence of symptoms and he should not receive false hopes as to the ultimate cure.

In regard to pyloric and parapyloric ulcers, the medical treatment is the same as for duodenal ulcer. The results, however, are less favorable because these lesions are more apt to produce obstruction. They also cause adhesions of the duodenum and gall-bladder, and duodenal stasis. In spite of healing of the ulcer, the resulting mechanical difficulties often make surgery imperative. It is in this type of case that gastro-enterostomy achieves a brilliant result.

Lastly, we must consider ulcers of the body of the stomach, which are by far the most interesting group and the most difficult group to pass judgment upon. Twenty years ago, McCarthy, of the Mayo Clinic, estimated that 68% of resected ulcers showed malignant degeneration. This statement produced a tremendous effect and made it evident at the time that surgery was the only treatment for gastric ulcer. Today, however, there is considerable dissension from this idea. Mallory, of the Boston City Hospital, for instance, says: "We have ulcerating cancers, but I have never seen a cancer originating on peptic ulcer, that is a chronic ulcer with cancer nests in the border or base." Wright, of Massachusetts General Hospital, agrees with him as does F. W. White, Lahey, Cole and others. The Mayo Clinic has also modified its original assertion, as follows: There are 9 chances out of 10 that an ulcer is benign if the crater is smaller than a quarter (23 mm.) and 14 out of 15 chances if the crater is smaller than a dime (18 mm.). If the crater is larger than a quarter (30 mm.) the lesion is probably cancer.

Thus we see opposite opinions held by men of note. We can also readily appreciate the

psychology of both these schools. There is nothing more dramatic than to follow a large penetrating gastric ulcer, watch it diminish in size and disappear in 3 or 4 months, with apparent cure of the patient. The x-ray plates of such a case are fascinating, both to the doctor and patient. On the other hand, is there anything more tragic than to see such a similar lesion degenerate into an inoperable carcinoma, and to feel that, perhaps, if we had not delayed 6 months in medical treatment, the patient might have been saved?

Our method of treatment of gastric ulcer depends first on location. An ulcer on the lesser curvature or posterior wall high up near the cardia is treated medically, no matter how large the lesion may be, because the surgeon as a rule cannot reach this type of lesion and gastro-enterostomy is a futile procedure.

The ulcers of the pars media deserve a thorough medical trial, provided they are small in size and there is sufficient hydrochloric acid in the stomach. They should be checked up with x-ray examinations every 2 weeks for 3 months. If the lesion does not decrease in size, then surgery is indicated. This type of ulcer very often heals satisfactorily but should be watched for many years. We saw 2 such patients return in 2 years with a recurrence of symptoms and radiographs showed the original lesion.

Lastly, we come to ulcers at the pyloric end of the stomach. These are the most difficult to decide about, as to whether they are benign or malignant. The age of the patient, duration of symptoms and the amount of free hydrochloric acid are usually the deciding factors. The radiographic evidence is not always helpful because there is considerable narrowing and distortion due to accompanying spasm. Even a short course of medical treatment cannot always decide for us because now and then one sees a patient with a carcinoma who is relieved of symptoms and gains in weight in the first 6-8 weeks of his medical course, probably due to quieting down of the attending ulceration. In case of doubt, it is wiser to operate. As an illustration of this point, we recently witnessed the

resection of a lesion at the pyloric end of the stomach, where pre-operative diagnosis was ulcer, and the surgeon on gross examination called it ulcer, but the microscopic examination revealed carcinoma. We believe that many of these lesions can only be diagnosed correctly by the pathologist and that it is a wiser policy to resect 10 benign lesions in order to cure one malignant one.

CONCLUSIONS

(1) Peptic ulcer is a chronic disease, the exact cause of which is unknown.

(2) Treatment depends on the location and size of the lesion, duration of symptoms and economic status of the patient.

(3) Treatment should be guided by the combined efforts of the clinician, surgeon and roentgenologist.

(4) Patients should be followed for 5 years before cures are pronounced.

FEEDING PROBLEMS IN NORMAL CHILDREN: THE PRE-SCHOOL CHILD

HARRY B. SILVER, M.D.,
Newark, N. J.

Abnormalities and difficulties in feeding arising in perfectly normal children, from a physical standpoint, present the most perplexing problems in pediatric practice. Fully 50% of the children brought to the pediatrician come with the major complaint of unwillingness to eat, "pickiness", or a vomiting of food. It is fairly easy where a definite abnormality can be found and treated to effect a cure, but in far the greater proportion of cases nothing of a physical nature is evident; bad teeth, infected tonsils and adenoids, pyelitis, chronic intestinal infections, are causative in only a very small proportion of cases. All of these things should be looked after and corrected but when all this is done the total number still unimproved is discouraging.

I do not intend to consider any of the feeding problems in sick children either acute or chronic. The child we are particularly inter-

ested in is the pre-school child or the run-about from 2-5 years of age. In this age group lifelong habits and tastes are laid down and it is really astonishing how difficult it is in older children and adults to overcome these food aversions. The factors producing these aversions are many, some simple and some very complex. Loss of appetite or rather, loss of enjoyment in eating as such, leads to a train of physical and mental ills. The resultant semistarvation and the subsequent anemias so reduce the efficiency of the child as to render it more likely to contract disease and less able to fight any disease and its resulting complications. We all know that starvation or underfeeding is a great factor in the increase of tuberculosis and many reports of the increased incidence of this disease in young women since excessive weight reduction has become fashionable are available. But it is hardly necessary to warn mothers of the dangers of loss of appetite and under-nutrition, since the tendency is to worry too much about them rather than too little.

I will try to give briefly my ideas about normal feeding and feeding habits, and then to discuss some of the causes for the variations that we commonly see. The normal child between 2 and 5 years old should be on a diet of 3 meals a day, with possibly an afternoon tea if he is eating well. His feeding schedule should be rigidly adhered to both as to time and type of food. He should be fed alone or with other children not old enough for the adult table. I do not believe that any child should eat with adult members of the family before he has reached the age of 8 years and only then if his feeding habits are normal and established. The type of food advised is a liberal mixed diet with an absolute absence of all condiments, spicy sauces or exotic preparations. The food should be well prepared and presented in an attractive form. Ship molds for cereals and desserts, and extra effort in dressing the little table bring a real reward. Variety should be offered not so much at the same meal as at different meals. Do not make a meal of many different courses but limit it to 1 or 2 major dishes. Do not

attempt to force or stuff food, or in any way to discuss or praise various dishes.

There is one very important thing to remember in dealing with young children and it applies not only to feeding but to all relationships: *Over-insistence will cause an increased resistance.* It is essential to condition the meal time to a satisfaction and not to a feeling of frustration or even physical discomfort. It is easily noticed in handling a dog that if you allow him to come to you of his own accord he will do so readily but if you attempt to force him to you he becomes afraid and attempts to get away. This in a child is an entirely subconscious reaction but an important one. The more you explain to him how necessary it is to eat and how much good the special food will do him the less likely he is to take it. There is an occasional child who will eat better in quiet and silence but the ordinary child is too active mentally to be willing to sit still long enough to eat. It becomes necessary to furnish some mental activity but it must not have any relationship to the food or eating. It makes a good time for story telling or reading. Fundamentally, the trouble arises in the mother rather than in the child, or better, in the environment. Often in the second half of the first year soreness of the mouth develops because of irritation or the cutting of new teeth. The pain which accompanies these changes makes eating an unpleasant experience for the child. However, the mother is disturbed and insists on forcing the food in spite of this pain. Here is immediately built up an association of pain rather than pleasure with the feeding act, and one sufficiently well enforced to remain a real influence on the child. After the first year the reactions become more human and less animal-like. Both conscious and subconscious responses develop. How many of us have seen cases of refusal to eat starting after the arrival of a new baby in the family, or some other happening that has reduced the child from its place as the absolute center of the household? This refusal is used as a lever to attract attention and the more attention the child attracts the better it is pleased. Often the child finds out that the

way to get something previously refused is to eat well. Unfortunately, but as is often seen in human behavior, pain in another is more pleasant than a mild gratification for oneself and the child uses this despotic power for a satisfaction of its sense of potency. Vomiting, in these children, is seen as an exaggeration of the same attitude when a simple refusal to eat is not sufficient to obtain the required amount of sympathy.

But getting from the theoretically interesting to the practical, what can we do, first to avoid these difficulties and secondly to cure them if present? Food as a subject of discussion is absolutely forbidden in the presence of the child. Food is what you eat when you are hungry, and that is all. Rosy cheeks and other promises of that type mean less than nothing to a child although he realizes very quickly that they are of importance to the mother. The dining room should be in a pleasant well-lighted part of the house with which the child is familiar. It is inadvisable to feed a child in a room where spattering of food or kicking of the table legs is likely to cause concern to the mother. The table should be set with care and should be attractively laid. The use of small tables and chairs is often a great aid. Dishes should be of a practically indestructable type and use of the heated serving dishes is often a convenience. In their use, however, care must be taken that the water in the container is not hot enough to cause accidental burns and that the stopper is so tight that the child will not be able to release it himself. Spoons and forks should be of a small enough size so that the child may handle them easily.

Great care must be exercised to prevent the child from acquiring bad food habits from the adult members of the family. These food habits are not inherited but are easily acquired and difficult to change. This is one of the primary reasons for the insistence on separate feedings. In order to accomplish this, it is also necessary that all adults refrain from discussing foods or food preferences in the presence of the child. In my own experience there has been no objection to the use

of cocoa or chocolate or vanilla flavors in the milk, provided it is not made too sweet. This type of substitute is often taken when plain milk is refused. In the beginning no attempts at forced feeding should be made. The child should be permitted all of a meal or as much of the separate dishes as he desires. This should be done without coaxing and without insisting that the child finish everything in the plate. For a child that is not eating well there must be absolutely no feeding between meals. Temporary upsets or unwillingness to eat should be ignored, especially if for some reason or other the child is below par. It is comparatively easy starting with a baby and teaching it proper food habits without giving it an opportunity to learn improper ones but it is much more difficult to take a child that has acquired bad food habits and correct them. This is particularly true when the child has already reached the age of 4-5 years and has had a fairly satisfying experience with a worried and coaxing mother. It is a source of frequent astonishment even to the pediatrician how often one may take a child with a history of difficult feeding and on getting it into a hospital find that the problem has disappeared. As soon as the acute stage is over the child eats without any difficulty or coaxing. This, of course, is due to the fact that the child soon learns that no one is very much concerned whether he eats or not, and being hungry eats. But it is disappointing to observe how rapidly the reformed sinner relapses when he returns to his own home environment. It is a characteristic thing in children that once convinced of the inevitableness of a procedure, they waste no time in further combat. The screaming, crying child only does so while he still retains a hope, faint though it may be, of ultimate success. Any successful treatment of already established habits of improper character must take this into consideration. No program should be attempted without the absolute certainty of success because 1 defeat loses the spoils of 10 victories. The program that is attempted must not be elaborate. The mother must realize that once having taken a stand

it must be carried through to the very end without any weakness or outside interference. Starvation until a child eats is very easy to say but not quite so easy to carry out. I've seen a child starve and vomit himself into a rather serious condition. The greatest advantage a mother holds is the withdrawal of privileges. A child should be made to understand that the things that it wants and the things that it likes are to be obtained as a reward for exemplary conduct. Deprivation and reward should be immediate and tangible, and threats or promises whose fulfillment are in the distant future have no value, and punishment delivered after a delay is resented as an injustice. Immediate and radical changes should be avoided as much as possible. Above all, I wish to emphasize as an absolute necessity that once a determination is made it stands unchanged.

There is one type of child that I wish to say another word about, that is the so-called nervous child. Nervousness in these instances is usually in the mother but the child hearing about it constantly soon develops a fair semblance of the condition. This is another subject that is absolutely taboo in the presence of the child. Most of these cases are in children that are over-active both mentally and physically. It is necessary with many of these children to curtail or eliminate their activities during some part of the day. An over-tired child will not eat any more than an over-tired adult. With these children, the best plan is development of a siesta habit. An hour's sleep after lunch or at least an hour's rest in a darkened room often solves what might develop into a serious condition. Some times it is necessary to read to them but only familiar simple stories should be used.

There are 2 thoughts that I wish to leave with you. Firstly, that, as is true in many other cases, prevention is much easier and more satisfactory than cure. Secondly, cure may be obtained but only at the price of absolute determination and concentration on a practical program.

A CASE OF UNDULANT FEVER

MICHAEL VINCIGUERRA, M.D.,

Attending Physician and Neuropsychiatrist,
Elizabeth General Hospital,

Elizabeth, N. J.

Since few cases of undulant fever have been reported in New Jersey, and since the transmission and progress of the disease are such live problems from the standpoint of both sanitation and economics, it seems worth while to keep the subject before the profession by putting on record the cases that we may come across.

An adult, white female, 31 years of age, married and the mother of 7 healthy children, who had been employed for some years in the milking of cows, was admitted to the surgical service on September 27, 1929, complaining of shifting pains in the abdomen, vomiting, and loss of weight. Family history was negative, and also the past history aside from usual diseases of childhood. The present illness began 5 days previously with sharp and continuous pain in the left lower quadrant. The pain "felt like a lump" to the patient, and was not relieved by change of position. Two days later she had similar pain in the right lower quadrant and over the bladder. These shifting pains became so sharp and lancinating in character that a physician was called. She had vomited 3 times, the vomitus being of a greenish color. On admission, temperature was 103° F., pulse 128, and respirations 40. Physical examination showed negative findings everywhere except in the lower abdomen, where pain was elicited on pressure, and increased tenderness on palpation; no masses palpable. Vaginal examination showed the cervix in normal position, lacerated, and very tender to lateral pressure. There was also tenderness in both adnexa, especially the left. The condition appeared to be acute salpingitis.

Urinalysis at this time was negative, except for a slight trace of albumin. Blood count: 12,300 white cells, polys 88%, hemoglobin 60%. Two days later the white cell

count had risen to 15,400 with hemoglobin 85%; and the differential count showed polys 80%, monos 6%, endothelials 2%, eosinophiles 10%, basophiles 2%.

Within 3 weeks the abdominal pain had disappeared, and on October 14 the patient was transferred to the medical service. She still appeared acutely ill, and had developed a marked asthenia. Physical examination showed chest negative, heart rapid but no murmurs, liver and spleen not palpable. No masses found in abdomen. Temperature about 101°, pulse 120, respirations 20. Blood pressure 132/80. Urinalysis negative. Blood: hemoglobin 75%, white cells 13,800, polys 86%, monos 12%, endothelials 1%, eosinophiles 1%.

While under observation, the patient's daily range of temperature was between 101° and 103°; pulse 100 to 130. She complained of chills, followed by drenching perspiration, especially at night. She vomited several times, on one occasion vomiting up a round worm, but repeated examinations of feces were negative for ova. The Widal reaction was negative. On October 21 a blood culture was reported sterile after 7 days' incubation, but culture on October 25 gave a positive agglutination for *B. melitensis*, dilution 1:160.

At the beginning of November, the patient's temperature had fallen to practically normal, but she complained of severe headache, and gave evidence of pituitary dysfunction. Although she had lost a good deal of weight, she was still obese. Her features were not sharpened, and her facial bones were rather large. Neurologic examination showed hypotonia of the upper extremities, hyperflexion of the elbow and finger joints, and diminished reflexes. An x-ray examination on November 5 was reported as follows: "Sella turcica is visualized, and, other than being somewhat smaller than normal, no pathology is seen."

The patient was discharged as recovered at the end of 62 days. She had been treated symptomatically, as when the diagnosis of Malta fever was made she was already improving. Her case was complicated by acute sal-

pingitis and *Ascaris lumbricoides*, and an earlier diagnosis would hardly have been possible. However, given a patient with an "undulating" temperature, chills, perspiration, rapid loss of weight, and marked asthenia, Malta fever may well be suspected, particularly where all other findings are negative. A positive report from the laboratory will of course absolutely clinch the diagnosis.

While the disease runs a protracted course, sometimes continuing as long as 8 months, Drs. H. Cambessédès and G. Garnier have reported recovery in 3 successive cases after a single injection of vaccine (*Brucella abortus*), and others report equally good results from the use of acriflavin. Where an early diagnosis can be made, it would seem well worth while to make use of any measures which may shorten the course of the disease and reduce economic loss.

DETERMINATION AND PROPAGATION OF SEX BEFORE BIRTH OR AT WILL

JAMES V. JASO, M.D.,
Newark, N. J.

Since the appearance of my first article, I have analyzed the histories of 60 women with 135 births. Of these, 75 births were from my own records and the remaining 60 were taken from the files of Dr. Albert S. Harden, of Newark.

Of the 75 cases studied from the records in this second series, the following results were obtained: Correct determination 65, or 86.67%; correct borderline 4, or 5.33%; a total of 92%; borderline failures 3, or 4%; absolute failures 3, or 4%.

Through the kindness and courtesy of Dr. Harden, I was able to study a variety of cases from his files and applied my rule for "Sex Determination" with the following results: Correct determination 42, or 70%; correct borderline 6, or 10%; total 80%; borderline failures 3, or 5%; absolute failures 5, or 8.33%; cesarean correct 2, or 3.33%; pre-

mature birth correct 1, or 1.66%; precipitate labor correct 1, or 1.66%; total 6.65%.

From study of the cases in Dr. Harden's files I was pleased by and greatly enthused over the results obtained. These cases (taken from the doctor's old records) tended to prove, independently of my own records, the apparent accuracy of my theory.

Thus far the number of cases studied by me were 433, with the following results:

Correct determination 347, or 80.13%; correct borderline 49, or 11.31%; total 91.44%. Borderline failures 15, or 3.46%; failures 18, or 4.13%; cesarean 2, or 0.46%; premature labor 1, or 0.23%; precipitate labor 1, or 0.23%.

Since the first writing I have had occasion to apply Dr. Schoner's theory to 25 births, with the following results:

Thirteen cases sensitive over left ovary; 11 resulted in girls, 1 in boy, 1 not yet delivered. (Delivered Jan. 7, 1930, girl.) Eleven cases sensitive over right ovary; 10 resulted in boys, 1 girl. One sensitive on both sides resulted in boy.

Dr. Schoner's theory is, in my opinion, of no material value in determination of sex before conception, because before you can determine the sex of the child the patient must be already pregnant, and once pregnant you cannot control the sex of the child to be born; so that it has no value except to know before-hand, for your own or the families' satisfaction, whether the sex of child to be born is a boy or a girl. However, in conjunction with my theory, it will be of great value if percentage of correct determination is as high as he states or as high as my limited observations seem to indicate. With these 2 theories, and coöperation of the general public, it would seem possible to control the sex of any or all families.

It will be of interest to know that several local surgeons and pathologists in the city have expressed willingness to coöperate with me in a study of my theory clinically and pathologically.

Through the Chief Medical Examiner's office of Essex County, I was able to examine the reports of several pregnant women who

came to autopsy. The results were as follows:

Case 1. Mrs. R. E., colored, aged 24, was admitted to the Newark City Hospital Dec. 1, 1929, in labor. On examination patient disclosed an impacted brow presentation, and in view of the fact that she had then been in labor for 6 days and was making no progress it was decided to do a cesarean section the next day. She was delivered of a 7½ lb. baby boy. After 6 days the mother died. At autopsy the right ovary appeared about 1½ times normal size; its surface quite smooth. On section it contained a single cystic corpus luteum measuring about 1 cm. across, the cavity was lined with a yellow membrane and the contents a brownish fluid; remainder of the ovary was fibrotic. The left ovary was a little smaller than the right. On section it was homogeneous, firm and fibrotic.

Case 2. Mrs. A. M. J., colored, aged 25, was delivered on the outside of a full time, baby boy on May 30, 1928. A few days later was admitted to the hospital with sepsis, and died June 5. At autopsy the right ovary was large and edematous; an old corpus luteum 1 cm. in size was found. The left ovary was smaller and no recent corpora found.

Case 3. Mrs. A. G., white, aged 42, was admitted to hospital April 29, 1929. On examination there was a tear on the left side of cervix extending up to fornix. Bulging in right fornix and brownish blood in vagina. Diagnosis of ruptured lower uterine segment on left side was made. The patient was in labor 24 hours and presented an impacted right shoulder with prolapsed right arm. A version and breech extraction was done and a dead fetus obtained. Child was a female. The mother died and autopsy revealed ruptured uterus with large pelvic abscess on left side involving tube and ovary. The left ovary was not examined, but the right was carefully examined and showed a small fibrotic ovary with no gross evidence of a corpus luteum.

Case 4. Mrs. A. H., colored, aged 30, admitted to hospital Aug. 3, 1929, for hemorrhage following a 7 months' premature birth of a baby girl. Mother died and autopsy

showed a small yellow corpus luteum in the left ovary.

Case 5. Mrs. E. N., aged 34, admitted to hospital Nov. 10, 1928, following 5½ months premature still-birth baby girl. Diagnosis, sepsis. Patient died. Autopsy showed a corpus luteum, cystic about ½ in. size in left ovary, the rest of the ovary was edematous. Right ovary showed fibrosis, no recent corpora hemorrhagica.

RULE FOR DETERMINATION OF SEX
OF UNBORN CHILD

Divide the year into even and odd months. If a woman pregnant for the first time gave birth to a boy, and her last menstrual period occurred in August, which is the eighth month of the year, and therefore an even month, from this data the sex of the subsequent pregnancies can be determined before birth or at will; provided nothing has occurred which might upset the menstrual cycle in the interval between pregnancies. Therefore, if the next pregnancy should occur in an odd month, say March, which is the third month of the year, instead of an even month as was the date of the last menstrual period, the result will be a girl. The tabulated cases show application of the rule and the apparent accuracy of the theory.

CONCLUSIONS

- (1) From the number of cases thus far studied, it would seem that my theory is applicable in from 80% to 90% of cases.
- (2) Dr. Harden's cases, independently of my own, tend to prove the accuracy of my theory.
- (3) Dr. Schoner's theory, in my opinion, is of no material value applied alone for determination of sex at will.
- (4) His theory might be of great value after pregnancy has taken place, in that it can be used as a check upon my own and that of Prof. Schenks.
- (5) With combination of both theories it would seem possible to control the sex of any or all families so desiring.
- (6) It is possible to apply my theory clinically and pathologically.

(7) With diligent study of material, clinically and pathologically, it is possible to prove or disprove the accuracy of my theory, that ovulation is alternate from one ovary to the other.

(8) The 5 cases studied pathologically tend to prove that ovulation is alternate from one to the other and that the right ovary produces boys and the left girls. Although these cases are few and do not constitute ab-

solute proof, I am hoping, with the assistance of my colleagues and the chief medical examiner's office, to collect sufficient data to report more fully on this question in the not very distant future.

(9) Do not attempt to determine sex by the sensitivity method during active labor or you will surely fail.

(10) The few cases tabulated illustrate my rule and the ease with which it is applied.

TABULATION OF CASES

Date of last period	Odd Even	Date of Birth	Results	Remarks
Feb. 8	2	Nov. 15	Boy	
Sept. 3	9	June 10	Girl	
Sept. 19	9	June 26	Girl	
Sept. 11	9	June 18	Girl	
May 17	5	Feb. 24	Girl	
Apr. 9	4	Jan. 16	Boy	
Sept. 30	9	July 7	Girl	Borderline
Aug. 7	8	May 14	Boy	
Oct. 21	10	July 28	Boy	
June 1	6	Mar. 8	Girl	
Oct. 5	10	July 12	Girl	
Aug. 17	8	May 24	Girl	
May 11	5	Feb. 18	Boy	
July 23	7	Apr. 30	Boy	
Dec. 18	12	Sept. 25	Girl	
Feb. 13	2	Nov. 20	Girl	
Nov. 15	11	Aug. 22	Boy	
Apr. 25	4	Feb. 2	Boy	Borderline Failure
Jan. 6	1	Oct. 9	Girl	
Nov. 1	11	Aug. 8	Girl	
Apr. 9	4	Jan. 16	Boys	Twins
Dec. 12	12	Sept. 19	Boy	
June 24	6	Mar. 31	Boy	Failure
Mar. 11	3	Dec. 18	Girl	
Jan. 10	1	Oct. 17	Girl	
Nov. 6	11	Aug. 13	Girl	
July 21	7	Apr. 28	Girl	
Mar. 14	3	Dec. 21	Boy	Bleeder died 3 Days After

HEADACHE*

THOMAS F. REILLY, M.D.,

Attending Physician St. Vincent's and Fordham Hospitals, New York City

New York City

The patient's stating that he has a headache may mean *neuralgia*, which is essentially different and is localized, has tender points, and runs a definite course; may mean *migraine*; or *tic douloureux*. Patients sometimes use an unfortunate term "neuralgic headache", meaning a headache of sudden

onset and great severity, shooting to the teeth, which may or may not be a *sinus headache*. The commonest error, however, is to regard the patient's complaint of a feeling of pressure, or expansion or pounding in the head, or emptiness, as headache. This sense of pressure is exceedingly common in nervous patients, and must be sharply differentiated from headache or head *pain*. So one must first ascertain if it is a real ache or pain that is meant when the patient says he has a headache.

In general, one may say that many patients inherit a tendency to become headachy on slight provocation. Possibly the inheritance of certain skull forms that readily cause pres-

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sure on sensitive meninges; odd shaped sinuses, or foramina of unusual size, account for this tendency. The relative frequency of the symptom headache depends largely on the particular clientele, although it is safe to say that there are very few people alive who have not experienced a headache at some time or other.

A leading neurologist gives the following proportion of patients coming to him for relief of this symptom: 45 neurasthenic; 6 hysterical; 17 organic; 19 gastro-intestinal; 13 diseases of special sense. The oculist claims that 75% of headaches are due to eye-strain, but then his cases are mostly of a chronic nature. In a study of industrial medicine among department store employees, in 800 cases the order of frequency of headache as a presenting symptom in the more common complaints, is as follows: (1) acute infections, coryza; (2) constipation; (3) poor hygiene; (4) psychoneurosis and eye-strain.

In general practice most of the headaches that are seen are acute, and are associated with fever and coryza, or with gastro-intestinal disturbances, while the specialist sees most of the chronic or left-over cases. In any event, there is scarcely a doctor who does not, in his practice, meet every day with more than one patient suffering from headache.

Etiology. In the majority of instances, the cause of headache is self-evident on the first examination, and it is either an evidence of toxemia or infection. As to the rare cases, Leftwich has listed 160 causes of headache.

The first step in such a scheme is to divide headaches, as to their cause, into 3 general classes, toxic, mechanical, functional or reflex, and these may be further divided into acute and chronic or recurring. This will materially shorten the diagnostic line.

Roughly speaking, almost 50% of all headaches may be said to be due to toxic causes, 10% to mechanical causes, and 40% to reflex causes.

Toxic headache is commonly complained of in the frontotemporal region; by some patients in the parietal region, the pain running through from temple to temple. If one will think along the lines of Head's zones one will find that most consumptives will com-

plain of distress over the particular zone corresponding to the lung reflex arising from the affected portion of the lung.

The commonest occurrence of a toxemic headache is the headache of constipation and other digestive disorders. In some patients the head discomfort is rather a fullness in the head coming on after a heavy meal. This might easily be interpreted as being due to a swelling of the nasal mucosa or of the turbinates, such as usually accompanies normal digestion. One may cite many such instances. In one patient a supra-orbital headache comes on 1 hr. after eating an orange; and is relieved by soda bicarb; another has pain in the temporal region after taking a glass of milk; another 3 hr. after partaking of beef soup; another, after chocolate.

For many years the headache that follows from the hurried eating of ice cream was the subject of much speculation. This is usually a left temporal headache. It has recently been proved that this headache is due to action of the cold against the left ventricle of the heart, producing headache by a referred mechanism in just that portion of the head where we would expect any irritation of the left ventricle to cause pain, according to the hypothesis of Henry Head.

In the management of any headache whatsoever, the factor of constipation should be considered as likely to be present, either as a direct cause of the headache or as an added cause. For that reason there are very few headaches the treatment of which should not be begun with a purgative. In chronic recurring headaches, constipation is usually not the sole cause of the headache. There is almost always another pathologic condition present in addition to the constipation, the removal of which other pathology is of more importance than regulation of the bowels. As to *Bacillus bulgaricus* and *Bacillus acidophylus* treatment, unquestionably the introduction of these bacilli with milk into the gastro-intestinal tract has been provocative of relief of some few chronic headaches, and patient, and very often the doctor, rushes to the conclusion that inasmuch as an occasional headache that has resisted all ordinary means is by

this agent relieved, then the bacillary milk or yeast must be the specific cause of relief, but close questioning of the people thus cured shows that the bacillary milk produced the first regular bowel movements they have had in years. It is this regular detoxication due to having the bowels move that accomplishes the good results in an indirect manner. A small but definite percentage of such patients secure relief while taking the milk or bacterial agent. In such people the regular use of bile salts, with salicylate of soda, is often successful in bringing about relief. The ingestion of butter, fats of all kinds, eggs, cheese and raw fruits, is harmful to this particular class of patient. This fact is noticeable when a patient, for any reason, misses his accustomed breakfast. It also follows in some people omission of the usual tea or coffee with the meal.

The headache of chronic uremia is usually felt on arising in the morning, and is situated in the back of the head, in the suboccipital region, rarely radiating to the front. So common and so regular is this symptom that in the case of any adult complaining of morning suboccipital headache for a month or longer (in the absence of any symptoms pointing to nasal disease) one should consider the kidneys as the most likely cause. It may be contended that salicylates are not well borne by the kidneys of nephritics, but extended observation has failed to convince us of any ill effects resulting from the use of medicinal doses and it is folly to expect such a patient to have recourse to a doctor every time he has a headache. A nephritic headache is often relieved by a hot water bag applied to the head, whereas ice is apt to make it worse. Aspirin is a sovereign remedy. Such a headache is frequently relieved by nose bleed. The use of a vibrator to the head commonly aggravates it. Sleep relieves it.

The cause of the headache in early syphilis is a syphilitic meningitis. In late syphilis, cerebral endarteritis is the commonest cause. Like the headache of endarteritis from any other cause, it comes and goes, and has fairly definite localization. Gumma is relatively uncommon. Sclerosis is still more uncommon.

In the early stages of chronic syphilitic meningitis, headache is the rule. There are in addition, often mental changes which closely resemble paresis. The headache is of a boring type, with tenderness to percussion. In the latter stages, ptosis and other eye signs are commonly present.

In arriving at a conclusion, other evidences of syphilis must be looked for, such as Landouzy's scars in the mouth (minute whitish scars 1/4-1/3 in. long, at the corners in the mucous membrane), or other evidences of leukoplakia, hard testicle, penile scars, Argyle-Robertson pupil, as well as disease of the cranial nerves, particularly the sixth. It may not be amiss here to call attention to the fact that a positive history of syphilis is sufficient evidence of the presence of the disease. After the presence of syphilis for 3 months, "once syphilis always syphilis" is a rule to remember. The practice of doing a Wassermann test in the presence of such a positive history, is much like looking at a negro and asking him if he is a colored man.

Cardiac headache is for the most part a dull constant ache, only paroxysmal during or after exercise. It is not present in the course of every cardiac decompensation. Doubtless the condition of circulation in the nose is often a deciding factor, that is, if there are contacts made between the turbinates and the septum the sinuses are cut off and headache results; which explains why cardiacs complain so bitterly of paroxysms of headache associated with coughing. High blood pressure and rapid heart action are often accompanied by frontal or occipital headache. In patients suffering from high blood pressure due to any cause, headache is experienced whenever the blood pressure is suddenly increased or markedly diminished. This is often noted after ingestion of the nitrites, or on sudden bending over, or by the head being rapidly lowered as in a barber's chair. In these subjects the headaches are more or less continuous, with severe exacerbation, coming and going for years. Some of these patients describe the pain as maddening.

In arteriosclerosis a dull headache is often present. It is sometimes described by the pa-

tient as the feeling of a tight band, or of compression with pain. It is often present in the morning on awakening, also after exercise, and grows worse until after breakfast, when it passes off. It is frequently vertical, more commonly frontal, and is usually accompanied by vertigo and various paresthesias. Occasionally it is quite severe, especially after strenuous exertion, and sometimes it interferes with sleep. Again, it is described as though a sudden sharp needle was thrust into the side of the head, usually in the parietal region, and is sharply localized over an area about 1 in. in diameter. In such cases it may continue constantly severe for several days, and often only a hypodermic of morphin will give relief. It occurs more often at night, and it is made worse by worry or hurry. It has no positive diagnostic import, but many of these patients develop hemiplegia on the opposite side of the body at a later period. Others complain of numbness in hands or feet on the opposite side. This and other coincident symptoms call for rest, as they are often precursors of a stroke. Of course, no one should make such a positive statement of the likelihood of impending apoplexy to such a patient. The resemblance of this form of headache to that of neurasthenia is often very close.

Pressure of the middle turbinate against the septum is the commonest cause of nasal headache. When this pressure occurs as a result of spur or deflection, it is accompanied by a feeling of tightness in the nose, and by supra-orbital headache. In such a nostril, dust, coryza, dry atmosphere, close atmosphere, or a sinus with pus, will induce this discomfort. A head cold in the course of a normal menstruation is particularly apt to cause this pressure, with consequent headaches. Probably the commonest primary cause is a productive inflammation of the middle turbinate bone itself, with or without the production of polyps, which on occasion absorbs moisture and swells up, thus blocking the opening of one or more of the sinuses. It is often promptly relieved by local use of adrenalin in the nose. Relief is not so prompt after later treatment as it is on

the first occasion. In general, the winter headache of the city dweller is a nose headache, aggravated by insufficient ventilation, and by steam heat. Such headaches are almost immediately relieved on going out in the air, and are due to the above mentioned causes. They may be short, or even of momentary duration.

Sinus headache may be an acute or chronic affair. The typical acute sinus headache is that of the frontal sinus. It is invariably preceded by a head cold. The headache commences early in the morning or after breakfast, and lasts until late in the afternoon, when relief is obtained. It repeats the following morning, and so on each day for 5-6 days, then begins to wax less, lasting from $\frac{1}{2}$ -1 hr. less than on the preceding day. Usually the duration of the attack is about 10 days. The pain is commonly described as maddening, and is localized on one side, accompanied by tenderness to pressure, and aggravated by exercise or stooping. Among the laity this type of headache is frequently termed neuralgia, because of its great severity and because it comes and goes. When in doubt the so-called Ewing's sign, i. e., tenderness over the floor of the frontal sinus on pressure, may always be elicited. If the finger be inserted under the supra-orbital ridge on both sides, and pressed back to the tubercle, around which the pulley of the superior oblique is attached, in frontal sinus involvement this point is exquisitely tender on one side; a sign described many years ago by Dr. Ewing, of St. Louis.

The pain in maxillary sinus disease is either over the maxillary sinus, or under the superciliary ridge, or even over the mastoid, the pain being then perceived through the Vidian nerve. Not infrequently teeth are drawn in the belief that the pain is due to dental pathology. It must be distinguished from tic douloureux. In true neuralgia the pain is always sharp, momentary, like a lightning stroke, with an appreciable painless interval; whereas in sinus disease, while the attack is on it persists for hours and the pain is steady and constant.

When the sphenoid sinus is the source of

headache, not infrequently there is a drawing or dragging sensation extending from the occiput to the spine of the seventh cervical vertebra; there is a desire to angulate the head and place a hot water bag in the nape of the neck. The differentiation from neurasthenic headache is made by the presence of a slight temperature reaction, and by the other signs such as leukocytosis and acute infection. Such a condition is to be treated by the use of cocaine to the region of Meckel's ganglion. Closure of the mouth of the sphenoid sinus may follow from any one of a number of causes, and at any one time two or more such causes may be active. While the attack is on, bending or stooping and stepping down suddenly causes increased pain; lying down usually relieves it. This is perhaps the commonest kind of headache aside from the toxic headache.

The irregularity of the pain in sinus headache, and the apparent good health of the patient in the intervals, the ability to sleep and no evident cause of headache, are apt to lend color to the diagnosis of nervous headache.

Sluder describes an uncommon form of headache which he calls "Vidian neuralgia". After a severe cold in the head producing a posterior ethmoiditis and sphenoiditis, the pain still sometimes remains. This pain begins at the root of the nose, or back of the eye or jaw extending backward to the temporal region, and frequently it is referred to a point about 1 in. behind the mastoid, from where it radiates around the occiput and down the neck. An unintelligent patient has great difficulty in describing this pain. Inasmuch as the sympathetic portion of the Vidian sends branches to the spinal ganglia as far as the first dorsal, and the first dorsal sympathetic sends fibers to the heart, Hay suggests that this may account for some of the attacks of angina pectoris which occur in patients following advent of a coryza.

A very common type of occasional sinus head pain is frequently combined with slight dizziness and commonly results in the complaint of "dizzy head". It is common in elderly patients and follows a head cold and sinusitis, always with eustachian catarrh.

Whenever the patient bends over or comes down heavily on his feet so as to shake the head violently pain results and frequently this causes congestion of the middle ear and a short sharp headache is produced. Close examination will show a generalized catarrh of sinuses throughout the head. This condition is apt to last for several weeks and the patient says he has headache at all times. Treatment directed to the ethmoid and sphenoid sinuses gives relief, and not otherwise, and treatment must be kept up daily.

Any extraordinary stimulus applied to any of the organs of special sense will, in some people, induce reflex headache. This is evidenced by the headache that results from very strong light, loud sounds, or a disagreeable odor. It is the eyes, however, that are responsible for approximately 75% of chronic, bilateral frontal headaches, and for 40% of all chronic headaches; so, in any case of chronic headache without a manifest cause, the shortest cut to a diagnosis is usually by first examining the eyes.

For ages it had been noted that patients suffering from visceral disease complained of headache, but there was no very definite scheme of connecting the presence of pain in various portions of the head with the visceral lesion in the abdomen and thorax until Henry Head published his epoch-making researches. In the main, his findings are still as classical as ever, and we shall quote largely from his findings because we have verified them on many occasions. At times Head's formulas are not literally true, because the anatomic basis back of them does not repeat: in other words the anatomic arrangement of nerves, vessels and muscles are not the same in all individuals.

The theory which one would like to construct, that segmental zones on the thorax are supplied by one branch of a nerve figure, the other part of which would correspond with its cranial segment if sympathetic, is thus far scientifically unproved, but that a relationship exists there can be no doubt. Nor can one by this relationship, which is commonly present, directly determine what disease is present in the chest or abdomen that

causes the particular headache. The only fact that can be ascertained is that the diseased organ lies in the region of the body represented by the cutaneous nerve distribution supplied by that particular segment. Observations made by Head, and since confirmed by others, are to the effect that involvement of the cutaneous distribution of the third cervical is accompanied by a pain that shoots through the head to the center of the forehead. A similar condition prevails in disturbances of the region of the fourth cervical nerve. There is no well defined area of referred pain until we come to the segment supplied by the second and third dorsals. Pain in this area sometimes produces a painful and sensitive area in the so-called midorbital region.

The term "nervous headache" is often used to mean an excuse. Some patients say they always have a headache. This usually does not mean anything. Anyone who eats and sleeps well, and who says she has a headache at all times is a sure prevaricator. If the patient sleeps well she had no headache at all times, in our sense of the term. Nervous headache is an expression that explains the disease in one who has had a previous nervous breakdown and in whom at different times the headache arises in different parts of the head. In one instance, following noise, inhaling bad odors, or anything that upsets the patient's mental condition, and arises from various senses that are disturbed. When these conditions are fulfilled it is justified to say that the patient has a "nervous headache". To such a headache, a theatre ticket often constitutes the rapid form of cure. Practically, in daily life, a cup of tea is the quickest form of treatment provided the patient thinks some effort is made to procure her comfort.

Every time such patients are seen, (and they must be seen frequently by the physician, no matter how disagreeable it may be to a busy man) all of the complaints must be noted and written down, and at each successive meeting they must be checked off, and new ones added if present; those eliminated

are called to the attention of the patient and emphasized. By a gradual elimination the patient will admit that she has not this or that complaint, among others the so-called headache. At the next meeting it is easy, by referring to the notes, to show her that such and such a complaint, as for instance the headache, was absent at that time. By her gradually realizing that she has not had the complaint constantly, it ceases to become a fixed feature in her memory. The fact of this disappearance must be featured and emphasized; this encourages the patient that he or she is making progress, and does much to dissipate the fear psychosis which is always present. Losing his headache on one or two occasions will do much to prevent the patient from saying that it is *always* present, and unless it has a pathologic foundation it will gradually disappear from the realm of consciousness, and then cure is effected.

A menthol cone or ointment of methyl salicylate applied to the forehead or temples, by its cooling effect, often gives the patient much relief. The head discomfort of the neurasthenic, particularly the symptom that the head is too heavy, is sometimes relieved by placing two or more pillows behind the shoulders supporting the neck and back of the head.

Fatigue headache is seldom seen by the physician. In this so-called neurasthenic fatigue headache there is in addition to the headache a feeling of pressure about the head, as if the temples were held in a vice, or that an iron band surrounded the head is the most frequent complaint.

A very severe headache which is usually unilateral and is accompanied by severe and persistent vomiting is common in women, and when it occurs in man he is a complement of his mother for the disease is usually transmitted by females; this is the *migraine* of the older authors. It is due to an enlargement of the pituitary body, begins usually at the onset of menstruation and goes into the menopause when it ceases. It is not cured by dieting but certain foods do seem to aggra-

vate it. The disease is seldom thoroughly relieved and is transmitted to each succeeding generation and must be borne. Migrainin relieves the pain.

DISCUSSION

Dr. Fletcher F. Carman: The matter of headache is to the general practitioner as well as the specialist one of great importance. We generally use something like aspirin or something which is equally helpful in giving them relief, or a laxative, and when we resort to treatment of that sort, which is only temporary, we find that the patients will go to an osteopath or some other man because he will do more for them and goes to more trouble to find the real cause of the headache.

The type of headache I am most interested in is one which I see frequently and sometimes suffer from myself; it is due no doubt to what has been termed a fibromyositis of the trapezius muscle. This headache may be unilateral or it may be bilateral, is frontal usually, but at times may be in the eye. When patients complain of this type of headache, and they so often do, I try to find out if there is a tenderness over the prominence of the occipital bone. If tenderness is present and pain goes down the shoulder, and sometimes even down the arm, I find that they can be somewhat relieved by massage. Probably application of the thermolite will do more than anything else to help, for that with the massaging will often seem to cure the condition; aspirin, though it does give relief, will not cure the condition.

I would like to ask Dr. Reilly if he will explain something about this type of headache.

Dr. Wm. F. Keim: I am greatly pleased to note that the doctor gave so much importance to sinuses and other abnormal intranasal conditions as the cause of headaches. Not infrequently we are consulted by patients for this malady who have previously consulted many physicians without relief. Upon investigation we find that no rhinologic examination has been made, as the patient does not complain of intranasal trouble. However, upon examination it is found that there is an impacted turbinate, a moderately deflected septum, or a septal ridge impinging upon one of the turbinates. A very slight degree of congestion of the turbinates will cause irritation, manifested as pain referred to various parts of the cranium. These congestions may be caused by some toxic condition in the intestinal tract or other part of the body, as the nasal mucous membranes are very sensitive to toxemias from any sort of cause.

There is a form of vacuum headache which I believe is not uncommon. A patient will complain of severe pain over the frontal sinus, which lasts for some time and suddenly disappears when free passage of air into the sinus is reestablished. In these cases transillumination or x-rays will show the sinus clear, but the pain will recur periodically because of closure of the frontal duct by congestion of the obstructing parts, and must be relieved by operation.

The subject has been so ably handled that I will simply say that I believe it good practice to

have a careful rhinologic examination made in all cases of persistent recurrent headaches, and in many cases valuable information will be obtained. In chronic antrum disease, there is usually no pain over the antrum but indefinite pains referred to the head are not infrequent. In acute exacerbations of the disease, there may be pain and tenderness over the antrum. Eye-strain is no doubt frequently the cause of headaches, but intranasal conditions should not be disregarded.

Dr. Joseph I. Echikson: I am rather surprised to hear Dr. Reilly say that diet plays very little part in the causation or treatment of headache. Recent work done by Barborka, at the Mayo Clinic, brings out the close association between migraine and epilepsy. Their association in members of the same families suggests that they may both be due to the same mechanism; that is, a profound disturbance in the body chemistry, especially with regard to the balanced or unbalanced reaction of the blood. This work naturally suggested application of the method of induced ketosis by diet such as has been rather successfully applied to the treatment of epilepsy. Experience of others as well as in our own cases leads us to believe that diet does play a great part in the etiology and treatment of migraine. We feel that the subject of diet as it concerns migraine needs further study and that we have now a method of treatment which offers some hope of relief to the victims of migraine.

One must not forget, however, that it is possible that improper diet such as it is necessary to employ to accomplish the desired results may lead to other profound alterations in the body chemistry, the consequences of which are not at the present time known and which may cause serious by-effects.

Dr. Thomas F. Reilly (closing): Dr. Carman spoke of the type of headache he sees frequently and has suffered from himself—a type of headache which he finds is relieved by massage at the back of the head. This type is often considered as being due to gout, so his massage is useful. It has been considered as a North Sea disease as we frequently find it in these parts because it is thought to be of gouty origin. Books often speak of it as an indurated headache. I would suggest about 25 massages as described by Dr. Carman, should be given for more complete relief.

As to the last question raised, on the matter of diet, I think that applies only to migrainal diet in migraine headache. All sorts of diets have been tried and found unsatisfactory, not only here but in Europe as well. Migraine is supposed to be due to pituitary enlargement. The symptoms are vomiting, terrible headache, and so on until the spell has run its course; and the condition runs through menstruation.

About those cases resembling epilepsy, it is the general belief, but it is only a belief, that the experiments of the Mayos may show good results but that remains for the future to determine. Men do get migraine but they are like their mothers, that is a man with migraine has a woman's body or frame, and inherits the features of a woman. Migraine begins in women at the beginning of menstruation and follows through the menstrual periods until the menopause when it gets better.

HICCOUGH OR SINGULTUS*

GEORGE BLACKBURNE, M.D.,

Newark, N. J.

This apparently insignificant symptom has claimed my attention from the time of my first operation in private practice—an emergency appendix operation in a farm house, 20 years ago—up to a recent date when I almost lost a very dear friend at a local hospital from this cause.

Hiccough, or singultus, is said to be a combination of spasm of the diaphragm with a coincidental closure of the glottis, and is due to a reflex stimulation of the respiratory center by irritation along the course of the phrenic nerve. It was mentioned by Hippocrates back in the earliest days of medicine.

There are many causes, and they may be classified as simple, local and systemic. Among the simple causes may be mentioned, sudden chilling of the body, the taking of very cold or carbonated drinks, fast eating, alcoholic excess and shock. Among the local causes are peritonitis, abscess of the liver, irritation of the diaphragm by pleurisy or empyema, aneurysm of the aorta, and new growths in the mediastinum. It also occurs in the course of general diseases, such as influenza, uremia, malaria, gout, diabetes, acute rheumatic fever, apoplexy, meningitis and encephalitis. Hysteria is also recorded as a cause. The type most frequently met with by the surgeon, and which occasionally results fatally, is that due to inflammatory disease of the abdomen, postoperative, and it occurs most frequently in men. In these cases it is believed to be due to stimulation of the respiratory center by afferent fibers of the phrenic nerve.

In the treatment of hiccough, there are almost as many remedies suggested as there are drugs in the pharmacopeia. It must be self-evident that when hiccough occurs during the course of a systemic disease, the underlying condition must be treated, as, for instance, the diabetes, uremia, apoplexy, en-

cephalitis or malaria. In nursing infants, it is generally due to irritation of the lower esophagus by curdled particles of milk, and the hiccough in these cases can generally be controlled by giving a sufficient amount of water to wash the material down into the stomach.

In the epidemics of hiccough which have been reported in various parts of United States and Canada, in conjunction with infections of the respiratory tract, the hiccough generally cleared up in 5-10 days with subsidence of the infection. It is interesting that in one of these epidemics a streptococcus, isolated from the nasopharynx, would produce spasm of the diaphragm in rabbits when injected intracerebrally.

My first case of hiccough, after resisting all control attempts of myself and associates, including lavage, morphin, inhalation of chloroform and other sedatives, stopped as if by magic upon the application of a drop of oil of cloves to the back of the tongue. Almost every physician has had such a case, quickly responding to some simple drug or line of treatment. Needless to say, I have tried this method on many cases since that time, but generally without result, and can only conclude that the patient was about due to stop at the time it was administered, and I feel that I must classify this case as one that got well in spite of the treatment and not because of it.

Among the various treatments commonly in vogue, I might mention the slow sipping of water, traction upon the tongue, counter-irritation to the epigastrium, forcible flexion of the thighs upon the abdomen, gastric lavage, pressure over the phrenic in the neck, loosening or removal of abdominal drains if present, rectal enema, spraying the nose and throat with cocain and adrenalin, inhalations of chloroform, intramuscular injection of 25-30 minims of ether, morphin and other sedatives by hypodermic, cocainizing of the nasal ganglia, or of the phrenic nerve on one side of the neck, and the use of carbon dioxide by inhalation. The latter has proved most successful in my hands in recent cases, and I believe that lives have been saved by its use, as

* (Read before the Clinical Meeting of St. Mary's Hospital, Orange, N. J., Nov. 12, 1929.)

a severe attack of hiccough occurring during convalescence from an abdominal operation very seriously endangers the life of the patient.

I have formulated the following rules for the guidance of myself and associates in the treatment of obstinate cases of hiccough in our hospital work: Morphin and atropin are given regularly by hypodermic injection, with luminal by mouth; the stomach is washed out with warm soda bicarbonate solution; the bowel is emptied by enema; drains, if any, are loosened or removed; traction is made upon the tongue, and carbon dioxid 10%-30% is given by inhalation, with one of the gas machines, for 5 minutes. The latter procedure is the strongest stimulant that we can give to the respiratory center, and the theory of its action is that the milder stimulations, causing the hiccough, are relegated to the background by the stronger stimulation of the gas. The patient is forced to breathe very deeply, the pulse is slowed and strengthened, and upon regaining consciousness, the hiccough is relieved for a varying period of time. These inhalations may be repeated when necessary throughout the day, and as I have seen some very severe cases respond to this treatment. I want to recommend it particularly for use with weakened postoperative patients, where other simpler methods have proved futile.

NORMAL SALINE SOLUTION IN EMERGENCIES

LOUIS WEISS, M.D.,
Newark, N. J.

News from Nome, Alaska, in January 1925, stating that an outbreak of diphtheria had occurred and that there was no antitoxin on hand to combat it, showed the need for an emergency antitoxin. About a year ago, a retired snake expert, while deep in the woods hunting for snakes, was bitten by one and was unable to obtain an antivenom injection until 5 hours later. This accident resulted fatally. If he had carried with him a first-aid

antitoxin, his life might have been spared. A report from Malange, South Africa, December 18, 1929, that a missionary had been bitten by a mad dog and was in a serious condition (with antirabies serum thousands of miles away) indicated the urgent need for a time saving remedy.

It is well known that normal saline solution has properties similar to those of the laboratory antitoxins, when used hypodermically. It stimulates the body's antitoxins, the actual remedies against disease. It may be freshly prepared, in any quantity, at a moment's notice, almost anywhere, and at a negligible cost. The preparedness it assures one is incalculable. A prompt hypodermic injection of normal saline solution will tide the patient over until the particular antitoxin desired is procured. Hypodermic tablets of sodium chloride 1 3/8 gr. each may be obtained. One such tablet dissolved in 10 c.c. of boiling water makes a sterile normal saline solution.

Missionaries, many of whom are physicians, should be equipped with an emergency hypodermic outfit to combat infections, for their own protection as well as that of the peoples they minister to, often in territories far from civilization. Expeditions of all kinds should carry with them an emergency hypodermic equipment to safeguard the health of their members. In summer camps, an emergency hypodermic kit should be on hand to give early aid to patients affected in an outbreak of disease, until the antitoxin sent for arrives. In epidemics, when the need for antitoxins may be greater than the supply, injections of normal saline solution can supplement the specific antitoxins. Ship physicians should use this simple and effective remedy in the absence of the antitoxin indicated. In hospitals, occasions may arise when emergency injections of normal saline solution would be advisable. In country practice, the physician miles away from his office or a laboratory, is apparently helpless when confronted with a case requiring an immediate injection of a specific antitoxin. Injection of a normal saline solution will overcome such a predicament. Physicians practicing in the city are

not immune to therapeutic embarrassment. A hypodermic syringe in one's pocket with a small tube of sodium chloride tablets to make a normal saline solution is good therapeutic preparedness.

Normal saline solution may be used for immunization in an emergency. Autogenous preparations and blood transfusions may advantageously be preceded in the interim by injections of normal saline solution.

Inject the sterile normal saline solution slowly, about 1 drop per second, subcutaneously or intramuscularly, with the patient in the recumbent position.

A full emergency hypodermic equipment should contain a bottle of 100 tablets of sodium chloride 1 3/8 gr. each; a 10 c.c. all glass hypodermic syringe with a 22 gage hypodermic needle 3/4 in. in length in a metal case; a spoon of 10 c.c. capacity; an alcohol lamp; 1 oz. tincture of iodine; 1 lb. absorbent cotton; 5 yd. sterile gauze; 1 doz. 2 in. sterile gauze bandages; a 5 yd. roll of adhesive plaster 1 in. width; a small scissors; a medium sized thumb forceps; and 100 wooden applicators.

THE PHYSICIAN'S RESPONSIBILITY*

CHARLES I. SILK, M.D.,

Perth Amboy, N. J.

"After-Care of Tuberculous Patients" is so vague an expression that we are constrained to ask—after what? If it refers to sanatorium residence and régime, the answer will vary according to the type of care given and the length of time the patient received it, the character of instruction given and his ability to benefit by it. It will also depend upon the clinicopathologic, general physical, social and economic condition the patient finds himself in when leaving the institution. There are comparatively few patients whose stay in a sanatorium is of long enough duration to permit full clinical recovery, and still fewer who have the opportunity not only for

clinical recovery but for hardening and restoration to full working capacity as well, and who take advantage of same.

This conception of after-care, however, (emphasis on *after*) leaves out of consideration the bulk of the tuberculous, who never enter a sanatorium at all, constituting about 80% to 85%, while a considerable number of the remaining 15% to 20% who do avail themselves of 1 of the 70,000 sanatorium beds provided in the United States, leave the institution in less than 1 month. Obviously, then, the definition of after-care must be so formulated as to take in that particular group of the tuberculous which has gone through some form of treatment, in or outside of a sanatorium, placing such group in a class by itself. In other words, by "After-Care" we mean the attention, advice and supervision which a tuberculous individual receives after his lesion has sufficiently healed and his general physical condition has so improved as to warrant his resumption of some form of occupation, part or full time and which enables him to take his position in the social economic structure to whatever extent his well-being may permit. The purpose of after-care is to prevent relapse and spread of infection; it must, therefore, be based on sound medical principles although the problem is largely social and economic.

The protean manifestations of pulmonary tuberculosis preclude formulation of general rules to cover the after-care of all cases; except such rules as are based on very broad principles. Each individual case must be a law unto itself.

For the purpose of after-care we may divide the tuberculous into 2 main groups: (1) Closed forms, being persons in whose sputum tubercle bacilli have never been demonstrated. (a) Where the infection is confined mostly to the lymphatics; the peritracheal, tracheobronchial and peribronchial lymph nodes. (b) Apical fibrosis not extending below the clavicle or second rib. (c) Scattered miliary (not general) or scattered small conglomerate nodules. (d) Pleurisy with effusion. (2) Open forms of tuberculosis, in the sputum of which tubercle bacilli have

* (Read as part of a symposium on the "After-Care of the Tuberculous" at the Annual Meeting of the N. J. Tuberculosis League, Atlantic City, October 25, 1929.)

been repeatedly demonstrated. (a) Ulcerative, (b) fibrocaceous, (c) caseous pneumonia with cavitation.

There are 2 distinct types of cases whose after-care will differ greatly. In the closed forms of tuberculosis, due to the benign character and tendency to more complete healing of the lesions, little attention will be required beyond periodic examination and the institution of a sound hygienic régime as a safe guide to an otherwise practically normal life. Those of Group II, because of their tendency to recrudescence and infectious nature, must have much stricter supervision, particularly as to the amount and character of work they may perform, depending upon the kind and extent of lesion and the reaction to exercise. Many of these patients shed tubercle bacilli either intermittently or constantly, making them unfit for certain occupations, such as foodhandlers, nursemaids, etc. Some of this group receive pneumothorax treatment while following an occupation, a practice much indulged in abroad with apparently no untoward results.

The prognosis of the bacillary group is very grave indeed. A. Pissavy, covering a statistical study of 831 patients at Bligny Sanatorium, France, shows that the average bacillary patient has 50% chance of survival after 10 years if slightly affected and only 30% if more severely affected and capable of being treated by pneumothorax. U. Quinard, studying the same group but from a different angle, comes to similar conclusions. The more constant and more numerous the bacilli the poorer the prognosis.

For the diagnosis and initial care of the tuberculous there has been developed in the United States during the past quarter of a century an enormously large and complex structure, costing untold millions in money and an inestimable amount of human effort, but the after-care is still in a feeble experimental stage. Estimating the average time it takes to arrest a frank case of pulmonary tuberculosis as $1\frac{1}{2}$ years at an average cost of \$1800 and an average loss in earnings over the same period another \$1800, making a total loss of \$3600 due to relapse of such a

case, it would certainly be sound business to make some additional investment for the protection and insurance of this principal amount \$3600 and against a further loss which must surely be incurred in repeating the treatment, with the great probability of much poorer results or even the loss of life after a long, lingering ailment. H. L. Taylor says: "The largest proportion of all relapses occurs during the first 12 months after discharge. * * * According to a survey, in New York City, of Bedford Sanatorium ex-patients, 52% had grown worse within 6 months to 1 year at home."

The outstanding problem in after-care is the setting up of proper apparatus on a comprehensive scale, comparable to that used in prevention, diagnosis and initial care of the tuberculous. When we have worked out a suitable scheme and put in motion the necessary machinery for same, only then can we hope to approach the question of prevention of relapse with some measure of assured success.

Close coöperation between the sanatorium, or resort specialist, with the clinic or home specialist in tuberculosis, is one of the prerequisites in the proper after-care of the tuberculous. No patient should be allowed to return home without full instructions and an earnest effort to get in touch with his home physician, giving the latter a résumé of the patient's record, including x-ray reports, which might serve to guide in the after-care.

Placement bureaus, where all suitable occupations and available positions are listed, with trained workers in charge, is another desideratum. Some agency must make this important phase of the work its business. Vocational training is another great necessity in some cases and for these suitable training facilities must be provided for their industrial rehabilitation. The development of farm colonies, industrial settlements, and special work shops, such as at Papworth, England, Potts' Memorial at Livingston, New York, and Altro Shops at New York City, should be encouraged and perfected, preferably in connection with nearby well located and properly conducted sanatoriums, where the

patient can have the advantage of expert supervision under most favorable working conditions.

Enough has been said to indicate what we believe to be the right direction to be pursued in development of the after-care of the tuberculous. That such a plan is feasible is attested by the reports of results obtained in the institutions just mentioned, as well as from other sources. To quote but one instance: "The report from the sanatorium of the Metropolitan Life Insurance Company shows, that of 896 discharged patients, 80% were at work 7 years afterward." Verily, supervision is the keynote to successful after-care of the tuberculous.

What is the physician's (meaning family physician) responsibility in the after-care of the tuberculous? We are particularly charged with finding an answer to this rather serious and important question. In the present scheme of tuberculosis care, as generally practiced in this country, the chief duty of the family physician is that of conscientious coöperation with the different agencies, private as well as public, that have been set up for the prevention, diagnosis, treatment and follow-up work of the tuberculous. First of all, he must take cognizance of their existence and then acquaint himself with their *modus operandi* by keeping in close touch with them. Taking advantage of the clinics and sanatoriums by sending to them the obscure and suspicious cases so difficult of diagnosis as well as those that are more advanced and even more difficult to treat at home. Past experience taught us that unless the family physician has been well trained and has had sufficient experience in handling tuberculosis, he should under no circumstances undertake the care or after-care of a tuberculous patient except under the direction of a competent phthisiologist.

Intelligent supervision being the keynote in the successful after-care of the tuberculous, it matters very little whether the medical advice comes from the head of a sanatorium, board of health, tuberculosis association or the family physician, provided it is based on an intelligent understanding of the principles involved.

DENTAL PATHOLOGY IN RELATION TO GENERAL HEALTH

EARL C. RICE, D.D.S.,
Philadelphia, Pa.

Dentistry in the olden days was practiced by men whose ambition was to restore decayed teeth to usefulness, and replace lost teeth with dentures of a more or less practical character. Some dentists did extracting but most of this work was done by barbers, blacksmiths and other men of brawn. This was the humble beginning of dentistry, but as the tiny acorn grew to be a mighty oak, spreading its welcome shade, so the profession of dentistry grew until it became a recognized specialty in medicine. It became a profession alive with hope and rich with splendid opportunity to serve humanity. It enjoys the respect of the world at large and is paying back to the world for its confidence a measure of service that is of incalculable value. The physician and the dentist have in recent years grown to value each the opinion of the other, and that harmony of purpose must of necessity foster higher ideals in the pursuit of knowledge. Your essayist comes with some firm convictions born of carefully recorded findings during nearly 40 years of observation and study. Bear with him in this discourse and be assured that your views in rebuttal will be received with an open mind.

It is the purpose of this essay to point out wherein the dental organs may act as factors in disease processes that take place in the other body organs. There are men who believe that focal infection is responsible for many of the diseases to which man is heir, and there are others who spurn the thought. It is a notable fact, however, that the former have arrived at their conclusions through research of an exhaustive character, and have proved the truth of their contentions clinically, while the latter have presented no data to confirm their disbelief. This is most significant. Many ailments which, heretofore, were looked upon as separate and distinct diseases are now viewed as symptoms of initial focal infection remote from the seat of

distress. Notable examples of these are: arthritis, uveitis, cholecystitis, myocarditis, and a host of others. Dental infections may initiate any of these conditions, and recorded cases prove that a large proportion of these recover promptly upon eradication of the dental focus. Such data are not only illuminating, but they stimulate us to search more diligently for the causes of disease and prompt us to exercise the dictum of medicine—remove the cause.

Time will not permit of a complete résumé of the histology of a tooth and its embryology, but a description of the minute anatomy of the dental pulp is necessary. The dental pulp is a vascular-cellular-neural organ. It is vascular because it contains the vessels that supply it with blood; it is neural because it contains the nerves that stimulate its function; it is cellular because it contains the odontoblasts, the formative activity of which builds the dentine or body of the tooth. It is important to note that the odontoblasts and their protoplasmic prolongations permeate the entire body of the dentine. They run radially from the central core of the pulp and terminate directly under the enamel in the crown of the tooth and directly under the cementum in the root. These fibers are all connected by lateral filaments so that we have a continuous reticulum surrounded by dentine.

When a tooth has reached maturity, the dental pulp has served its purpose and has little function left but to protect itself. Since the enamel has no source of nutrition, it must play a passive part when attacked by caries, and when it has suffered solution, the dentine is exposed and with it the protoplasmic filaments of the odontoblasts which are a part of the pulp. Now the mischief has been done. Unprotected, infection of these filaments must take place, and through these millions of tubules filled with pabulum inviting to organisms the central core of the pulp must eventually become infected.

It is possible for the dentist to sterilize and seal cavities and restore carious teeth to usefulness, with small danger to the well-being of the patient, but when the pulp proper has been actually infected it becomes an object

of peril to every organ in the body. This is an enormously important statement, and a most stupendous fact. The pulp may be removed in part and the main canal filled, but there is no test at our command that will satisfactorily prove that organisms are not still at work.

Your essayist is on record as being opposed to retention of pulpless teeth, since the many thousand of such teeth which he has examined in the pathologic laboratory have proved to be infected, and in addition many thousands of normal teeth that have been extracted for expediency in replacement work have been similarly tested to disprove the contention of some—that most vital teeth will show positive reaction. When teeth that are to be cultured are extracted, a most painstaking technic is required to prevent contamination, and pure cultures will prove the success of the technic.

The splendid work of Weston Price, Rosenow and others has given much strength to the belief that infected teeth may initiate more or less serious general disturbances. Rosenow has pointed out that many of the organisms found will not grow upon surface media, but must be cultivated in deep broth since they demand partial oxygen tension.

Eradication of dental foci of infection should be looked upon as a necessary prophylactic measure, regardless of whether a patient is or is not in a state of ill health. Only according to our light may we judge. Therefore we must have the courage to admit to our patients that the things we did in the past were done in the light of the knowledge of that time, and that growth of knowledge has torn down the temples of the past and on the site of their ruins has been erected more beautiful edifices that redound to the credit of progress.

We dare not hope for perfection in the face of limited knowledge, but in the depth of the cerebral cortex there is still a vast store of astuteness that may be characterized as knowledge unborn that must lead us on to better understanding. Let us ask that eternal question, as does the little child—why? For it has been written: "Seek and ye shall find."

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CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

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STATE SOCIETY MEETING

Have you arranged to participate in the Annual Meeting of the Medical Society of New Jersey? There is yet time to do so. Failure to be "among those present" is to deprive your professional brothers of your counsel and assistance in dealing with scientific and organization problems, and to deny yourself the personal benefits derivable from such association. We scarcely know whether to be jocular and say—"Come in, the water is fine"; or to be serious and say—"Come, we need you". Both statements would be true; either would constitute a justifiable appeal.

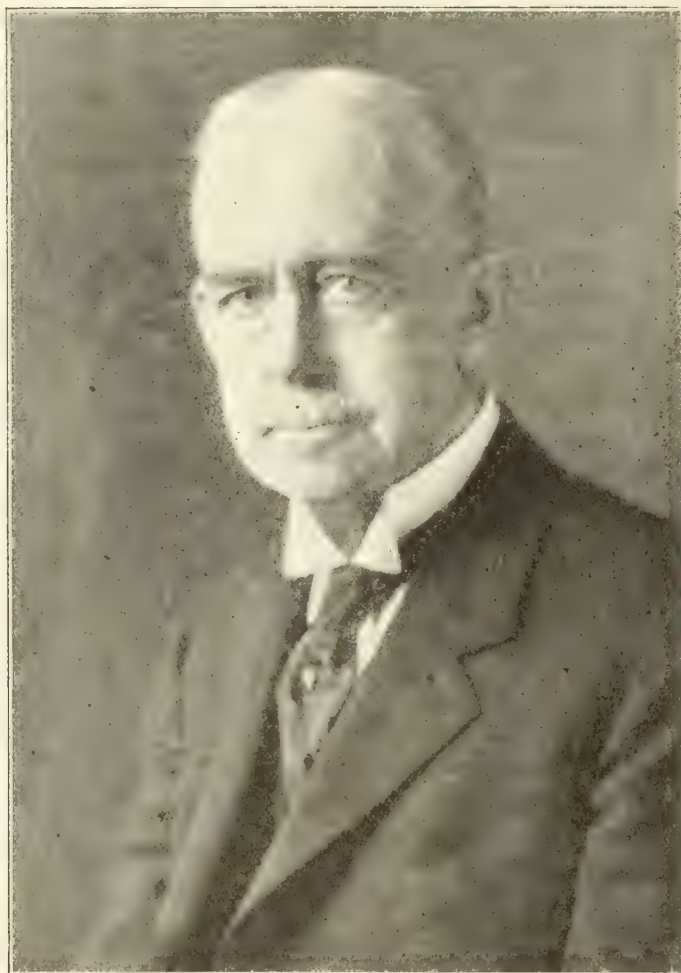
In the May Journal you were supplied with a complete program of arrangements, and attention was directed to some of its special features; and at the risk of boring you we again appeal to you for consideration of the many excellent things prepared for you by the Committee on Scientific Work and the Committee on Program and Arrangements.

We have been told that approximately 800 physicians in New Jersey are associated more or less directly with the public schools, and that 500 of these are members of this medical society. Therein you have the principal reason for inaugurating a special session for school physicians; subsidiary reasons may be discovered in the titles of papers listed for presentation at that meeting. Great changes have taken place during the past 20 years. From the simple medical requirement that pupils should be vaccinated before school en-

rollment, and the later provision for tests of vision, we have progressed to a far more intimate relationship to the health of school children. The closer contact between physicians and school authorities has naturally developed a series of questions and problems, most of which are not of serious import but all of which need consideration and solution through conference. We hope for a large attendance and free discussion at the special Wednesday afternoon meeting.

The General Sessions on Thursday and Friday afternoons should, likewise, attract members because their programs present the best opportunity ever offered the organization for discussion of medical economics. Our 2 guest speakers from outside the state are distinguished physicians who have thought long and seriously on economic conditions, who are reputed to be brilliant talkers, and who promise to supply us with "food for thought". We have heard them both on previous occasions and can assure you that their papers alone, will be worth the trip to Atlantic City. Then, our guest speakers from within the state, who are known personally to many of you, will talk about your daily contacts with the various state agencies engaged to some extent in medical work.

The scientific program and the entertainments need no special comment, save to say they provide the usual interesting material and the opportunity for sociability and relaxation. If the combined programs do not attract you to the convention, we do not know what will.



Charles Day Bennett, M.D.

1857 - 1930

In Memoriam

CHARLES DAY BENNETT, M.D.

DEPARTURE

By Mabel Ames Wastie

How strange to say "He was", and not "He is".
"I liked his smile", I heard a neighbor say.
"He had a whimsical, endearing way.
A sympathy and tolerance were his."
How strange to deal alone in memories
With one who loved the life of every day,
Who reveled in the sunlight on the bay
And shrank from deep, unfathomed mysteries.
How strange to know his banter is no more,
The pillow silent where his head has lain,
That a dim spirit from a darksome shore
Has grappled with his keen companion, Pain.
How strange to think the rose beside the door
Will open petaled lips to him in vain!

Dr. Charles Day Bennett, for many years a prominent physician of Newark, and later a resident of Summit, died in the Overlook Hospital, Sunday, May 10, 1930, at the age of 73. Born in Millburn, January 25, 1857, the son of Dr. Frederick Norman Bennett, he grew into and followed the traditions of a family of physicians. From a boyhood in Essex County he passed on to Princeton University for his Baccalaureate Degree, achieving while there election to Phi Beta Kappa, and thence to the College of Physicians and Surgeons, of New York, for a Doctorate in Medicine. From 1882 to 1890, he was physician to the Newark Almshouse; from 1890 to 1905, Attending Physician at St. Michael's Hospital; from 1891 to 1906, Attending Physician Newark City Hospital; and in 1908 the Newark Board of Health conferred upon him the honorary title of Emeritus Member, in recognition of valuable services. In 1905, Dr. Bennett became a Medical Director on the staff of the Mutual Benefit Life Insurance Company, and continued on active duty there until the end.

In medical society circles Dr. Bennett was an active but unobtrusive worker; serving for 18 years as Secretary of the Essex County Medical Society, for 1 year as President, and continued as chairman of the Necrology Committee. Likewise, he was for 30 years Secretary of the Society for Relief of Widows and Orphans of Medical Men of New Jersey, and served as the moving spirit in the directorate of that organization.

For some years past he had been best known to most of us, however, as Chairman of the Publication Committee of the Journal of the Medical Society of New Jersey—an office that he filled with great skill and credit, a task to which he gave body and soul. Few physicians are adapted to such work; none could give more than did he of loving devotion to performance of his duty. We shall miss him terribly.

As a practicing physician, as a professional associate, as a friend, as a worthy citizen, Dr. Bennett was truly "a gentleman of the old school". In the funeral service held over his bier, the minister very appropriately applied St. Paul's commendation of St. Luke—The Beloved Physician.

Esthetics

DRESS REFORM FOR MEN

Conservative, slow to change his mind with regard to personal garb, man is nevertheless beginning to "take notice" of the many suggestions recently made for the betterment of his health through a change in clothing habits, and for a relief to his feelings and improvement of his appearance by altering his raiment. Physicians, in particular, have recognized the fact that women are healthier and happier—as well as prettier—since they discarded the absurd encasements of heavy gowns, petticoats and corsets, and donned the light and airy costumes of the present epoch. We all remember the first winter season when women and girls came upon the streets in extremely short skirts, with sheer silk stockings, silken undies (if any), and blouse with wide-open collar. We recall the dire predictions of a great increase in the number of cases of pneumonia to follow. Well, the prophecies failed, in so far as related to these "nearly naked" females; the pneumonia statistics showed many more male than female patients, and there was not even a *relative* increase of morbidity in the "female" column. Women, despite the ever-present tendency on the part of some to exaggerate the styles in vogue, have, as a class, exhibited a high degree of good sense in the matter of dress. It is time for men to adopt their good example and to apply to themselves some of the knowledge and benefits that women have gained by experimentation.

Quite recently 2 of our professional confrères—an English and an American—have published very sane articles upon this subject and we are giving herewith abstracts of their interesting propositions.

HEALTHY DRESS FOR MEN

Alfred C. Jordan, C.B.E., M.D., M.R.C.P., D.M.R.E.
London, England

(Abstract from *American Medicine*, Dec. 1929.)

Man, is by nature, an unclothed animal; uncivilized man is naked today. When man was evolved from lower mammalian forms, he must have inhabited tropical regions. When man's realms spread to temperate and cold regions, he sought warmth and comfort by wearing the skins of beasts—trophies of his skill as a huntsman—and he wrapped himself round with these. But warmth was not the first purpose of clothing; nor was

"decency". The first purpose of clothing was adornment. Among wild peoples we find painting and tattooing even prior to clothes.

Some reformers in every country believe that man would be better off—both physically and morally—without clothes, allowing sun and air to play freely on his skin; placing absolute trust in the wonderful faculty of the skin for regulating temperature, and letting the skin carry out its important functions as an organ of excretion and a subsidiary organ of respiration—functions denied it by the masses of material under which men are in the habit of burying the skin. Point has been added to this argument by the recent discovery that the skin manufactures vitamin D—the antirachitic vitamin—when the sun's rays are allowed to act upon it.

The skin of an average overclothed civilized man is white, 'spotty and inelastic'; the skin of a healthy man is brown, smooth and sleek.

Let us assume that in our climate, clothes are necessary; a necessary evil, if you will. Well, then, they should be as scanty as feasible. Throughout the Victorian era, men and women were grossly overclothed. What with Mrs. Grundy and Mrs. Gamp it became "indecent" to let any part of the human form be visible in public, except the face and—on some occasions—the hands.

Women have abandoned that foolish attitude to their own immense gain. Men have only now begun to do so, and they have begun in a half-hearted way, for sports only. For tennis, it is no longer "indecent" for a man to bare his arms—and his "Adam's apple", but he still fears to show his knees! I have played tennis in flannel "shorts" for several years, on public and private courts; nothing would persuade me to revert to trousers. Recently I played tennis wearing only a bathing slip; this in a mixed company of men, women and children. The question of "decency" did not arise; why should it? The absolute freedom of movement was most exhilarating and delightful; not least owing to the bare feet (on a grass court); it was a revelation to feel the toes doing their duty for once; the feet no longer lifeless prows, but live and active members; each toe, well separated from its fellows, thrusting into the ground with every quick change of direction, aiding the speed and accuracy of each change.

This year, many men have adopted a really healthy and sensible dress for their holiday. They have worn a tennis shirt and a pair of

shorts and shoes. Some have added stockings, and on cool days a jacket or pull-over. Undoubtedly they have gained much in health and well-being through dressing sensibly. But on their return to town—and to work—they have once more assumed their stuffy, ugly and unhealthy work-a-day clothes; reluctantly enough in most cases. The indictment against man's conventional dress has been told so often of late, that I need not enter into detail; no self-respecting man should continue to wear clothes that are dirty yet cannot be washed; clothes that compel profuse sweating, yet are so tightly applied round the neck and round the ankles that the heat and damp cannot escape. Man's evening dress is the perfect model of an unhealthy and unsuitable attire. Consider a man's plight at a dance, and contrast it with a woman's in her light and cool frock. He wears his coat and trousers for years and never has them washed; if they were white instead of black, he could not wear them 2 nights without having them washed.

Surgeons, in the operating theatre, set a fine example of hygienic perfection of cleanliness, yet they visit their patients in the conventional black that typifies "the doctor". They go from one patient to another without change of raiment. I wonder how much infectious disease they carry about with them!

What, then, is the remedy? To wear sporting dress on all occasions? To report at the office in tennis or football kit, or in Scouts attire? Hygienically, nothing is wrong with the suggestion, but the esthetic side must be considered; an employer does not readily credit his clerks with a strong desire to "make good" and to further his interests if they come to work in sporting kit. Their thoughts must (he tells himself) be anywhere except on their jobs! And I think he is right! Slack and untidy dress does not conduce to keen and good work. But one can concede so much without admitting the need to perpetuate the objectionable clothes of convention. Far from it! Instead, let us take the sports models as our foundation, and build up, from these models, stylish and well-made garments of high-class materials and first-rate finish. Garments that will remove forever the reproach of drabness, dirtiness and unhealthiness from men's clothes.

My own plan (until something better is evolved) is to wear a suit consisting of lounge coat, shorts and stockings, all made to match, with shirt of rayon, suitably colored to tone with the suit. The shirt is open at the neck and needs no tie. Recently I have had other shirts made, so designed that they

can be worn with or without a tie, and either over or under the coat collar. The shorts are tailored to "sit upon" the hips, so they need neither belt nor braces. Consequently, on a hot day, the coat can be removed, displaying the neat, silky shirt; no ugly waistcoat or braces. The lounge coat is not really a satisfactory garment; it is heavy and unshapely and needs padding and stiffening to keep it presentable. Some form of "jumper" would be far better.

The Men's Dress Reform Party

When women feel dissatisfied with their clothes, why, they try something different, and then go on changing from year to year without asking leave of their men-folks, although, more often than not, it is they (the men) who "foot the bill".

Men, on the other hand, are timid creatures, fearful of defying convention and thus inviting chaff. Dissatisfied as they are with their clothes, few men have courage to change their style of dress.

Consequently, it is necessary to create a big organization to enable men to take united action. The manifesto in which the formation of the Men's Dress Reform Party was announced (in June) was signed by distinguished representatives of various professions and at once created world-wide interest. The letters that poured in to headquarters were full of enthusiasm and came from all parts of the world. Already visible results are forthcoming in the form of increasing popularity of the open-fronted shirt, and shorts for cycling, tennis and country wear. Lighter and brighter materials are beginning to be selected. In fact, an atmosphere favorable to reform has been created and will, inevitably culminate in a considerable amelioration in the plight of poor, overclothed and suffocated man. Hitherto, membership has been free to all; but it has now been decided to impose a subscription of 2/6 annually. Application should be made to the Hon. Secretary at 39 Bedford Square, London, W. C. 1.

SENSIBLE CLOTHES FOR MEN

W. F. Draper, M.D.,
Assistant Surgeon General,
U. S. Public Health Service

(Abstract from *Cosmopolitan Magazine*, Dec. 1929.)

Why do we men undergo day after day the discomfort of clothing which serves no useful purpose other than to shield us from comment and criticism which would result from any deviation from the conventional form of dress? Women have put it all over

us at the same time that they have taken it all off themselves, or nearly all!

With their common-sense clothes and their healthier bodies, women are capable of achieving prowess equal or comparable with that of men in tennis, in golf and in other healthful sports. And they can keep a lot more comfortable during the process!

The situation has been reversed and the contrast between their almost ideal mode of dress and our own foolish inhibiting garb should no longer be borne with equanimity.

As I write this I have before me a picture of my father, bearing the date 1872. The style of the hair on the head and face is rather quaint but the clothing is essentially that of today—the same conventional coat and vest; the trousers, white shirt and a tie. The collar, however, appears to be more comfortable than any worn today. The front ends are apparently about 3 in. apart, leaving a free low space beneath the chin which is neatly filled by the black tie.

If we had made no advances in our knowledge of hygiene and bodily well-being during the past 57 years, we might assert that we were not subject to the whims of constantly changing style—and take pardonable pride in our ability to hew to the line in the matter of conservative, sensible dress. But our knowledge of hygiene has kept pace with other advances and we know better than to continue to suffer from unnecessary, uncomfortable and unhealthful clothing. As individuals we rebel; but collectively, as men, we bow our heads to the yoke of custom.

It is high time for us men to start our own revolution. Certainly, masculine garb has not kept pace with the advances which have been made in other fields relating to the comfort, ease and enjoyment of living.

What, then, should constitute a sane and practical form of dress for men? The prime essentials should be health and comfort with due thought to appearance.

Now that it is known that sunlight and fresh air are healthful, stimulating and comfort-producing agents when applied to the human body, it appears ridiculous that men should cling to a form of dress which permits only the hands and face to be exposed.

While there no doubt are persons far more competent than a doctor to design forms of male attire which will approximate the freedom and comfort which women have achieved, I may venture a few suggestions to indicate the lines along which progress might be made.

Delivery from having to wear a coat, ex-

cept when it is actually needed for warmth, is the first step. This would relieve us of the necessity of forcing our body heat and humidity through the three layers of clothing.

As a substitute for both coat and shirt we might have a blouse or jacket—similar to the one designed by that heroic physician in New York whose poplin Russian-smock suit caused so much comment in the press this past summer. An ideal garment, it seems to me.

Almost if not fully as objectionable as the coat are the close-fitting neckband and collar of the present shirt. These are thoroughly effective in blocking the escape of any hot saturated air that might be inclined to struggle upward and out as a short cut to forcing its way through several layers of clothing.

They impede the motion of the neck and produce a suffocating sensation. Sometimes they irritate the skin and give rise to boils and even worse afflictions.

The collar is the first article to wilt and lose its shape; it becomes stained with perspiration and when that stage is reached it is prone to drag the wearer down with it and make him feel the way the collar looks.

If the present style of collar and studded neckband could be replaced by a soft roll collar sewed to the shirt with an open V-shaped neck in front (such as has become popular already for some occasions), we should have freedom of the neck, relief from irritation (both physical and mental) and some opportunity at least for the escape of hot and humid air from around the body.

If, at the same time, our shirt or blouse sleeves could be docked at the elbow, we should be still happier during the summer months.

Physicists tell us that hot air has a tendency to rise but only because it is pushed up by the heavier cool air surrounding it. The relatively cool air around the ankles becomes heated by our legs and tries to rise.

If it could rise and keep on rising it would bathe our bodies in a constantly changing stream of ventilation. But, of course, the belt is diabolically there to prevent it. Again, the hot air surrounding our abdomens and chests would rise and be replaced, but the belt will not allow the cooler air to push it up and even if it did, the tight collar would not let it out.

Therefore, let us do away with the belt as well as the collar and the coat.

What, then, will hold the trousers up? Perhaps the new modes will include a variation

f trousers that will not need to be held up, but will fit to the waist like a woman's skirt.

Which brings me to the final analysis of the situation. Suppose we proceed to correct the monstrous defects in men's clothing, particularly those for summer and evening wear, what have we left? Women's summer and formal clothing. Or very near it.

Sometimes I think their winter dress for street wear is not as sensible as ours, collar, sleeve and all—but for the rest, they point the way. We might search long for more suitable patterns—with modifications, of course.

Our underclothing is not so bad. Cut out around the neck and otherwise slightly modified, it corresponds to a woman's "teddy" or slip. While we shall hardly adopt the slip, we should do well to seek a masculine modification of the feminine outer garment known as the skirt. We may insist upon a separate skirt for each leg, but otherwise, in texture and length, it is wholly adequate.

We might, as the ladies do, adopt long draperies for evening wear. Loose hanging "trousers", suggestive of the Spanish dancing costume familiar to every screen fan in America, would not be a bad idea. Also, the soft, open-throated silk blouse worn by the paniards would be much more comfortable for dancing than the present "strait-jacket" into which the American man puffs and wheezes when he's going out for an evening's "enjoyment".

I've long since lost count of the times I have asked myself why in the name of all that's sensible a man should put on the heaviest, stiffest clothes he possesses when he is about to embark upon some 3-4 hours of concentrated exercise on a ballroom floor.

Why, if a woman appeared at a dance undressed up from neck to toe in any such manner she'd be thought insane!

One more item in dress reform—what about pockets? Of course we can't live without them. Pockets of some sort must be provided, no matter how few garments we wear. Perhaps a modification of the Cosack cartridge pockets or of the Highland sporran will be the solution. I'll leave that detail to the tailor.

If the most glaring defects in the present styles for men are corrected, perhaps that is all that could be expected in the lifetime of those of us who are now at middle age.

But mayhap in generations to come it will be possible to bare the arms to the shoulders in the summertime and thus to encourage the development of the biceps, triceps and shoulder muscles of our young men.

The ancient Romans—in the height of their cultural glory—dressed thus, and were magnificent figures of men, judging from the priceless relics of their age that exist in our museums today. And who can say but that at some time in the far-distant future a way will be found to free the lower limbs of much that now encumbers them?

There is one thing we men should insist upon having understood, and that is that we are not asking to be made comfortable in situations where we are already fairly comfortable. We can manage, with a little hitching, loosening and profanity, to make out fairly well at the camp, the beach and in the seclusion of our rooms. But we should like also to be comfortable at afternoon teas and evening dances, and while we are about it, why not aspire to comfort even in church?

Whatever costumes we adopt must be recognized, as women's dress now is, as decent, proper and dignified. Can we make the grade? I think we can.

Collateral Reading

MEN AND MACHINES

BY STUART CHASE

(Reviewed by the Editor)

If you desire to read a book that is fascinating from cover to cover, that supplies both entertainment and instruction on every page, and that deals with one of the most important sociologic questions of the day, purchase "Men and Machines". Thinking people are much disturbed at present about several aspects of the problem herein discussed. The daily news item announcing the appearance of Mr. Robot or Mr. Televox, or whatever the latest mechanical genius may be named, is apt to be balanced by a statement that the number of unemployed has risen to 2,000,000 or more workers. Boasts about new inventions, machines that cut, thrash and mill wheat or do everything to a field of cotton from ginning to weaving it, are counterbalanced by complaints of bankrupt farmers and closed-down factories and deserted mill towns. However keen one may be for the invention and installation of labor-saving devices, one must needs consider what this machinery is doing to mankind. Are we really gaining anything through all these changes? Are we "getting anywhere" or merely running around in circles? Chase furnishes us with many inter-

esting facts concerning men and machines, their relative places in developing civilization, and not only gives much food for thought but compels us to do some thinking.

In a review written for the Survey-Graphic, Leon Whipple said: "These pages are rich, popular, picturesque. You need fear no technical hazards. They are dynamic with speculation. Stuart Chase has a concrete mind plus imagination and humor. He is the kind of poet-explorer we need in an age lost in its own filing-system. He has enough facts but is not clotted with them. He will take a gamble on generalization and drag himself in as proof. I presume he makes a healthy per cent of errors but *also he makes you think*. His high irony blooms in mad asides. But in his heart is compassion and a dream of the good life. He is, to my guess, the most important American interpreter of present material phenomena and their social reactions."

There is much in the book itself which we would like to quote, but that might spoil it for your reading—and you should read it even if you have to neglect some important scientific book or journal, or forego a few games of bridge, in order to accomplish that feat.

To our readers among members of the auxiliary, let us say that they, too, will find this book worthy of study. The author has not overlooked the influence of the machine age upon women. Machinery has been an important factor in relieving them of drudgery and in affording them luxuries as well as comfort, but in some instances she too has "paid the price". For instance, Chase says: "There is one department where it seems to me that skill has been lost with no offsetting compensation. We have taken many of the housewife's tasks into the factory and left her to gossip, play bridge, buy more clothes than she needs, and make a sad spectacle of herself at so-called culture clubs. The poor woman has been left high and dry, after the children are big enough to dress and care for themselves—and there are not as many to dress as there used to be. The problem of the restless, neurotic middle-class woman is based on the fact that the machine has stripped her of her ancient skills, leaving nothing but boredom in their place. Nature has ever abhorred a vacuum."

John Stuart Mill raised the question long ago whether labor-saving devices really saved labor. The Lynds, studying a modern American industrial town, presented an interesting comparison: "The fourteenth century used the primitive tools of the Romans and Egyptians. Middletown was equipped with thousands of

mechanical horsepower and all the labor-saving devices of the Power Age. This seems a strange inversion—a great increase in machines, and a great decline in holidays; more power and less leisure. Middletown never halts, save for a dash across country in the Ford on Sunday, and it is reasonable to conclude that its people, for all their machines, have not gained an inch in the quest for leisure since the fourteenth century—if indeed they have not positively lost ground."

Concerning the flow of goods from all this machine help, Chase says: "We are certainly housed more glitteringly, fed more variously and clothed more diaphanously, and where is the home without its garage, its antennæ on the ridge pole, and the twin wires—bearing power and talk? * * * But, perhaps it would not have been too great a sacrifice to have exchanged a few million tons of assorted cosmetics, tabloids, correspondence school textbooks, automobiles, movie palaces, phonographs, radios, tin cans, tooth pastes, and 4 separate lotions after every shave in a modern barber shop—for fewer slums, bigger bedrooms, more wholesome food, clothing at once more beautiful and more durable, and above all, a great shipment of staples down to the two-thirds of all American families which still balance precariously on the margin of the budget of health and decency."

However, we would not give the impression that Chase thinks the world is going to the demnition how-wows because of machinery; he would rather have us consider how to control and utilize the billion wild horses of the machine power age. In drawing a balance sheet, he says: "I incline to the belief that machinery has so far brought more misery than happiness into the world. It has, however, brought fresh winds of change; and with them vitality and invigoration. With change, improvement is always possible. Where the balance lies, I do not know. Undoubtedly much good has come from teaching the last man to read—but then again, regard what he is normally reading. The illiterate reads the seasons and the stars; the literate the tabloids and baseball scores. * * * The machine of itself brings certain dangers and certain benefits. To my mind the latter outweigh the former. The machine as currently utilized brings a whole train of additional dangers with no corresponding benefits, save a possible expansion in the invention rate. When the 2 black lists are added together, the dangers outweigh the benefits. If, however, current usage can be modified to give the machine the maxi-

imum chance to prove its worth, the scale comes heavily down on the plus side. Russia has a chance to apply such modification, but she has not much in the way of a technical plant to apply it upon. Other nations, particularly the United States, have the technical plant but very little desire to modify it on the part of those who are in a position to bring about the necessary adjustments.

But most important of all, granting all the will in the world, is a functional control possible; is the human brain capable of directing the billion horses so that they shall not constantly break into wild stampedes?"

Medical Ethics

THE POOR MAN AND MEDICAL ETHICS

JOHN HAMMOND BRADSHAW, M.D., F.A.C.S.,
Orange, New Jersey

The following quotation is taken from The Amsterdam (N.Y.) Evening Recorder, May 2, 1930, credited to the Philadelphia Record:

"How long can the professional ethics of medicine preserve its chaste silence, its strict rules, in this age of publicity and advertising, of competition, claim and counter-claim? Doctors are not permitted to advertise. A young medico is supposed to get an office and wait for things to happen. Dr. Shirley K. Wynne, Health Commissioner of New York, has an entirely new viewpoint on medical ethics. The strict code, he says, works an actual injustice on the poor man. Able doctors do not seek publicity, do not reveal their fees. How can the poor man, needing treatment, having only a certain amount to spend, know where to turn? Dr. Wynne's suggestion is a list to be kept by the health department, in which doctors state their office hours, their scientific specialties, and their fixed fees for definite service. He advocates further newspaper listing of all doctors, with this information.

To the strictly ethical practitioner these ideas are immediately repulsive. Officers of the New York county medical society have risen in protest. They claim that the trained doctor will not seek publicity, having enough to do; that every doctor adjusts his fees, taking less from the poor; that unskilled men

will claim all sorts of specialties when the bars are down.

Dr. Wynne's answer is pointed: 'In Germany there is an elaborate system by which prices for all types of medical attention are stated. In the United States the only thing people buy without knowing its value is medical attention. Varying the prices is not business, and medicine ought to be on a business basis.'

The man whose work is, by and large, for the benefit of humanity, who spends years in lonely laboratory effort, who runs daily dangers, feels that he ought not to be put in the same position as the butcher, the baker and the candlestick maker. He feels himself one of a select circle, in a way consecrated by the oath of Hippocrates. His medical ethics is simply tradition crystallized into a code which sets him apart. But that tradition now runs into an age which cares not a penny for appearances. It wants to know; it wants a guide. It knows that the doctor lives on his fees, and refuses to sanctify the business of fee-giving and fee-taking. Medical tradition has in many ways begun to give under increasing pressure. Paying a doctor used to be an almost surreptitious thing; now it is an open matter of bills and checks.

There must be sympathy for the profession's idealistic view; there must also be a sharp realization of the changing needs of this rapid age. The dominant motive of our time is 'get things out into the open'. Perhaps to a limited extent, perhaps altogether, the question of medical fees will have to heed that demand."

This matter is brought up because it really has a double meaning. *First*, the poor man may be the doctor himself (but the public is not lying awake o' nights worrying about the poor doctor). *Second*, there is much to be said about the high cost of sickness for the public. Now, there ought to be some way the poor doctor and the poor patient can get together and help each other. Possibly even the rich doctor can help the poor M.D.

Now a doctor spends at least \$25,000 and 15 years of his life getting established. The writer found that the gross income for the first year of his practice was a little over \$200. (Naturally this increased as the years went on.) The depressing meagerness of his first year may have been just hard luck. Probably it was due to other causes.

If a man should spend so large a sum as \$25,000 and 15 years of mental work in any business enterprise and not get larger immed-

iate returns, after that period of time, he surely would be a candidate for the bankruptcy court. Even allusions to a home for feeble-minded might arise. But the everlasting hope in the human breast that the day of small things will pass away; the love of the glow from the lamp of science that keeps encouragement and incentive in his heart; these make all the initial conditions such, that I believe all our best men, who have been seasoned by such experience, would one and all, acclaim, Yes, they would do it over again, if they were given the chance of another life.

It is sad to remember that the lean years of a doctor's life are the years of his greatest youth, energy, and strength. Naturally, he lacks the experience of the older doctor but he has all the wonderful enthusiasm and the *initiative* of youth. He *could* do things worth while if he only had the chance. Generally he is well trained. He is fresh from contact with new ideas and association in his hospital work with the great leaders in his profession. These lean years of (im) patient waiting gall him. Life hands him much the same deal it gives the college athlete who has been 2 or 4 years on his "varsity" getting his muscles (and possibly his heart) strengthened and enlarged. He suddenly finds himself with little to do. The results is not beneficial for either his muscle, his heart, or his brain.

The remedy suggested in our heading quotation does not look right to the average doctor. But the writer believes that if the elder physicians and surgeons gave the matter more consideration, they could render not only to the young doctor great assistance and encouragement but, if the matter was handled in the right way, the high cost of sickness we prate so much about could be reduced for those who need this reduction most.

It is easy to ask—"Why not climb over the backs of the poor into the pockets of the rich?" But it is often poor climbing and the rich are not over-enthusiastic about the process.

Why should the overworked doctor often begin to count his patients as the miser his dollars? Would he not live longer, have more enjoyment in life, *more time to trim his lamp of science*, and more time to take longer vacations, if he would give that youngster (whom he secretly at first hated to see settle in his neighborhood) a boost, with the *gift* of an occasional patient? Yes, he would even find, as wise old Dr. Jacobi once told the writer, he

"learned more from his assistants than from his books". Even the high cost of sickness might be slightly reduced for the public with benefit to the physician himself.

Economics

BE HONEST WITH YOURSELF

(Reprinted from Kalends, Williams & Wilkins Co.)

Is there in all Creation a more short-sighted individual than the man or woman who measures the amount of work given by the amount of pay received? Such a trait is a sure indication of the possession of the quintessence of sterility, for any manifestation of the dread of doing too much is the best possible evidence of being unable to do enough to get ahead. It is the flag of inefficiency.

The biographies of men and women of worth all attest that they did not stop to count the hours by the way, nor did they keep a careful record of the amount of energy expended. What most of them did care for was *time*—the time to work at the top of their bent! They wasted no time *looking* for opportunities, they conserved their time by *creating* opportunities.

"No opportunity" is so often given as an explanation for quitting a job, be the job what it may. It's the most flimsy of all reasons extant, for the first step in achievement is to be ready to do the work of the position immediately beyond the one held. *Pay* is not the sole force which motivates those rare individuals gifted with sense enough to grasp this truth.

It is a matter of history that the world's best work has been paid for inadequately, yet it also is true that good work seldom has failed to open the way for recognition and reward. And in business and industry it is a truism that those who regard work, not as a deadening task, but as an opportunity, will in the end rank themselves with the best paid and most generously recognized. Even if monetary rewards do not materialize, as so often happens, there yet remains the very real and solid satisfaction that comes only from the knowledge and consciousness of work well done—a joy that is priceless.

As one grows older in working with others, the more confirmed becomes the conviction that what are called the homely virtues are the traits which count the most in the long run. No matter how clever an individual may be, no matter how quickly he or she may perform an assigned task, if there is not possessed a clear-cut idea as to the necessity of observance of the *right* and wrong of the current mores the sum total of achievement will be small.

Without seeking to detract from the value of intelligence tests in selecting applicants for positions in business and industry, it may be asserted with reasonable certainty that one of their inherent weaknesses is that they do not (possibly can not) take character into consideration. Yet in business, as in all other phases of life, character needs be taken into account most of all. For when plain honesty comes into conflict with clever superficiality, the honest individual averages high. The so-called "Smart Alecs" seldom arrive, and if by chance one of them does, the stay is never permanent and seldom very long.

All of this may sound like damned old rot! It is old, of course, but no one save a moron or a superficial "Smart Alec" will call it "damned rot!" Get this straight: If anyone gets into his or her head that this "old stuff" is of any less value than it was in any of the countless generations gone before, then he or she is fooling no one other than himself or herself. For today, more than ever, industry is searching for men and women who can grow big in personality and ability and not simply grow big in the head.

Men and women who can stand praise and advancement without deterioration to themselves are hard to find. Most of us begin to worry, as soon as recognition is given us, because we delude ourselves into believing that we are doing too much. Not so, the thoroughbred who gives everything, not knowing or caring whether the other man or woman gives more or less.

Make up your mind to it that working *with* others means the giving of all that one possesses in the way of energy, the spirit of fair play, and the desire to "go with". Who can do all this? Not many, it is true, but that is why the leaders of men are few.

In Lighter Vein

Great

"What are you doing?" asked a neighbor who came in and found Mr. Pipp in his cellar, hard at work among 25 crates of grapes, a wine press and about 6 kegs.

"I am engaged in a great social and economic experiment," replied Mr. Pipp.

Alike

Photographer—"Your son ordered these photographs from me."

Father—"They certainly are very much like him. Has he paid for them yet?"

Photographer—"No, sir."

Father—"That is still more like him."

Strong Medicine

"Doctah," asked a lady of color, "Ah's come to see ef you' am gwine order Rastus one o' dem mustard plasters ag'in today?"

"I think perhaps he had better have one more," answered the medico.

"Well, he says to ax yo' kin he have a slice o' ham wid it, 'count of it's a mighty pow'ful prescription to take alone."

"Isn't it queer about the bike craze?"

"Yes, it seems to run in cycles."—West Point Pointer.

Most Elusive

The celebrated humorist writhed in agony. Before him lay a manuscript, and as his eyes studied it they narrowed from the anguish of the mighty brain behind it—the brain that had impelled his hand to write the lines.

"Tracy, dear," his wife implored sympathetically, "tell me, tell me, what is the matter?"

"Ah, God!" breathed the funny man, "I'm afraid this joke is too subtle."

"But why do you think that?"

"W-well, I can't even see any point to it myself."—The American Legion Monthly.

Mrs. Craddock—"Yes, dearie, I'm goin' to change me doctor. 'E don't seem to concentrate on 'is work. Why, even when 'e was feelin' me pulse, 'e kept glancin' at 'is watch."

It won't help the world's mortality statistics much to scrap battle-ships and make automobiles out of them.—Brunswick (Ga.) Pilot.

Bad Man

"Big boy, does yo' think yo' hahd?"

"Hahd? Man, Ah's so hahd Ah don' dare put mah hands in mah pockets fo' fear Ah'll git 'rested fo' carryin' concealed weapons."

Life Is Like That

Eyestrain is caused by the other woman, earache by the wife.—Cincinnati Enquirer.

The true value of horse sense is clearly shown by the fact that the horse was afraid of the automobile during the period in which the pedestrian laughed at it.—The Louisville Times.

Annual Report of the Treasurer

1930

PERMANENT FUND

DR.

June 1, 1929—	
2 M 1st Liberty Loan 3½ % bonds..	\$2000.00
4 M 4th Liberty Loan 4¼ % bonds..	4000.00
1 M Chicago & Alton 3½ % bond....	786.50
Mortgage Certificates, Investors' Title	
& Mortgage Guarantee Company..	2000.00
July 3—	
Cash from General Account.....	39.50
	<hr/>
	\$8826.00

CR.

July 3, 1929—	
Loss on Realization, Chicago & Al-	
ton bond	\$ 126.00
May 31, 1930—	
2 M 1st Liberty Loan 3½ % bonds..	2000.00
4 M 4th Liberty Loan 4¼ % bonds..	4000.00
Mortgage Certificates, Investors' T.	
& M. G. Co.	2700.00
	<hr/>
	\$8826.00

GENERAL ACCOUNT

RECEIPTS

Balance, June 1, 1929 .. \$15,397.73

Assessment—

Atlantic	\$ 1905
Bergen	2505
Burlington	720
Camden	1975
Cape May	240
Cumberland	715
Essex	10575
Gloucester	510
Hudson	5850
Hunterdon	375
Mercer	2235
Middlesex	1615
Monmouth	1230
Morris	1175
Ocean	225
Passaic	2895
Salem	225
Somerset	645
Sussex	240
Union	3085
Warren	375

Publication Committee	39,315.00
Interest ..	8,222.07
Health Examination Charts sold	762.68
	13.10
	<hr/>
	\$63,710.58

PAYMENTS

For Publication Committee	\$14,284.97
" Welfare Committee	742.42
" Credentials Committee	335.46
" By-laws Committee	24.25
" Health Insurance Committee	162.00
" Executive Department:	
Salaries	\$14,000.00
Travel	2,309.44
Office expenses	3,296.81
Furniture (special)	438.70
	<hr/>
" Treasurer's Office	20,044.95
" Recording Secretary:	
Salary	\$1,478.74
Expenses and Office	1,993.32
	<hr/>
	3,472.06
" Rec. Sec'y: balance, 1929 acc't	865.00
" Expenses of Delegates to A. M. A. ...	621.34
" Printing and Stationery	1,749.57
" Tri-State Conference	163.99
" County Secretaries' Conference	130.15
" Expenses of Guests, 1929 meeting...	71.90
Transferred to Permanent Fund	39.50
Reserve	3,000.00
Balance, May 31, 1930	17,947.52
	<hr/>
	\$63,710.58

RECONCILIATION WITH BUDGET

Expected Income	\$48,450.00
Actual Income	48,312.85
Appropriations	48,450.00
Expenditures	45,763.06
Budget Surplus & Operating Net Balance	2,549.79

Respectfully submitted,

E. J. Marsh,

Treasurer

Lighthouse Observations

LOUIS BRAILLE—BENEFACITOR OF THE BLIND

By *Christopher Morley*
in the

Saturday Review of Literature, Jan. 11, 1930

(Every physician knows something about the Braille system of raised type printing which has been such a blessing to beings deprived of the sense of sight, but few have learned anything of the life history of the inventor of that method; which is our excuse for devoting this section of the Journal this month to reprinting of Mr. Morley's memorial sketch. We are grateful to him for the privilege of republishing this interesting and instructive article.—EDITOR.)

Some time ago The Bowling Green uttered an inquiry regarding Louis Braille, benefactor of the blind, as it is now a hundred years since his perfection of the raised type which bears his name. M. Abel Chevalley, the French correspondent of the Saturday Review, interested himself in our question with characteristic kindness and efficacy. From M. Dandieu, of the Bibliothèque Nationale, and from the Association Valentin Haüy pour le Bien des Aveugles (9, rue Duroc, Paris) we have received an interesting summary of Braille's career, which we are proud to print.

The first memorandum was compiled for us by one of the blind staff of the Association Valentin Haüy, the famous institution in Paris founded in 1889 by Maurice de la Sizeranne (himself blind) which publishes French works in Braille.

Louis Braille was born in 1809 at Conpvray, a village in Seine-et-Marne. He was the son of a harness-maker, and when he was 3 years old he lost his sight through hurting himself with one of his father's tools one day when he was playing in the workshop.

His parents heard that there was some method of teaching the blind, and applied for Louis' admission to the "Royal Institution for Blind Children" in Paris. In those days the school had only the most rudimentary equipment, and most of the teaching had to be entirely oral, so that only a few elementary subjects could be taught, but Louis Braille made good progress. He was 10 when he entered the school, and at 17 he was promoted to the staff; for the rest of his life he worked quietly and devotedly for his blind pupils, teaching them, and trying to find new and easier ways for them to learn. Besides grammar, arithmetic, history and geography Braille taught music, and during his life he was organist of 3 churches in Paris. He died in 1852 and was buried near his home, where there is a monument to his honour.

The life was quiet and uneventful; the work immortal.

The pioneer teacher of the Blind in France was Valentin Haüy (1745-1822); it was he who first thought of making tangible letters—Roman characters raised in relief on strong paper, and large enough to be recognized by touch. This idea was very useful for teaching the blind to read, but writing was a more difficult matter, and ready-made letters had generally to be used. Various experiments were made after Haüy's time, and letters of different shapes and sizes were tried, but the original idea was not appreciably modified until in 1829 Charles Barbier (an officer of artillery) had the bright idea of using a series of

combinations of points, arranged so as to give a rough phonetic system of 36 signs, and made by pricking the paper with a sort of blunt pin. This "high writing", as he called it, was dedicated "to the Blind, and to all people who have reached a ripe age without learning to write". The system was sketchy and incomplete, but the idea was excellent: to replace the line by the point as the basis of the "tangible" letter. Distinct points are easier to feel, and less easy to confuse than lines running together to form a network; they are more definite, and less likely to be obliterated by use. Braille realized this at once, and saw that the only difficulty was to decide on the best number of points and signs to use—enough to give a complete system, and yet not too many to learn by heart. He began to experiment with this method when he was only 16 and he eventually decided to use 63 combinations of 6 points, forming a complete system—the alphabet, with accented and unaccented letters, punctuation, figures, algebraic and musical signs, and even stenographic abbreviations.

At the same time Braille invented a very ingenious and simple tool with which all these punctured signs could be made. He thought over his system for a long time, altering and improving the different combinations, and when he felt completely satisfied with it he communicated with Barbier, who was favorably impressed. Braille was convinced that his system was much more satisfactory than Barbier's, but he was eager to give the honor and the credit to the man who had first suggested the idea. He made no claims for his method, but tried it on his pupils, and was delighted with the result; when he heard a small child read a page of punctured writing almost consecutively [or "straight off"] he realized that his discovery might revolutionize the life of the blind. Soon all the pupils and the blind teachers had learned to read and write, but the system met with some opposition from those of the masters who were not blind, because they could not themselves appreciate its utility. In 1840, at the age of 31, Braille made his great invention public, and many of the blind set to work, laboriously transcribing huge tomes in "Braille". Braille's treatise on his system met with a reception which must have given him great pleasure, but he had the prejudice and hostility of the authorities to combat, and it was only in 1852 (the very year of his death) that the Braille system was adopted exclusively. During this temporary hold-up Braille himself kept very quiet, and waited to see what the results of his work would be.

Today "Braille" is known all over the world. America has a slightly modified form—the New York system—in which the points are arranged on 2 horizontal lines. One of the most important branches of Braille's work was to adapt his system to the writing of music—still keeping to the same 6 points—and this was a great step forward in the teaching of music to the blind.

To the above the Secretary of the Association, Valentin Haüy, has very kindly added a postscript which we translate:

The private life of Louis Braille has passed into shadow. Everything that has been written about him speaks of his work and hardly at all of his personality. With the exception of the memoirs of Maurice de la Sizeranne none of the books about Louis Braille are in print, and even the biographical file in the Institution Nationale des Jeunes Aveugles was destroyed in 1870 with many other data.

Young Braille's aptitude for teaching was no-

ticed very early. At the age of 14 he was instructing his fellow pupils in the manufacture of felt slippers; at 16 he gave piano lessons, and a year later he was teaching grammar and geography. He was soon given charge of courses in history, arithmetic, geometry and algebra, in addition to the violin and 'cello. This miscellaneous instruction, though elementary, required a very various knowledge and all the more creditable in that textbooks suitable for him were not in existence.

The youth was gifted with a very accurate memory and a remarkable swiftness of assimilation. The necessity of abbreviation, for the sake of his pupils, became a master quality in him. Directness and clarity which were his characteristics as a student were further developed in him as a teacher, ripened by maturity and reflection. His explanations were always simple, clear and precise; he said all that was necessary, but only that. He often resumed what he had already said, briefly so as not to be wearisome, but adequately to recall what had gone before and to introduce the sequel. He treated his pupils with extreme gentleness, punishing very rarely and then with benevolent firmness. A contemporary who served as his guide in the streets and knew him well has written "Louis Braille, who was an outstanding personality at the Institution, made himself loved and valued by all for his amenity and graciousness. He was frail and anemic with very delicate physique. According to my memory he was tubercular. His rather haggard features were marked by a gentle melancholy. Though not much of a talker he loved to inform himself on everything which had bearing on the affairs of the Institution. He was very careful in dress and his bearing was always precisely correct. His spirit, was lucid and practical; a devout Catholic he always performed his religious discipline with great punctilio. He listened attentively to all that was said, and was usually the last to offer his opinion, which was given tersely and without unnecessary words."

M. Villey reports that Braille had a remarkable power of concentration, a sobriety of judgment that made him the adviser of all his acquaintance. A part of his very modest means was reserved for the expense of his researches and the rest was always devoted to charity. While still a child his playmates used to call him "The Judge". When age and experience had enlarged these instinctive qualities his friends and pupils continually came to ask his advice in difficult matters. Very gently, in his rather feeble voice, he would usually reply "I'll give you my answer tomorrow." Though his conversation and letters reveal a melancholy due to his poor health he was no less fond of sprightly society and enjoyed playing cards with his colleagues. He used to say pleasantly, as he sat down to a hand of cards, "Gambling houses are houses of perdition." Most of all he loved chess, and a painter whom he met in Auvergne was his favorite opponent.

Ill health compelled him soon to abandon his general teaching and restrict himself to lessons on the piano. During the hemorrhage which was fatal to him his bearing was an inspiration to all. His friends tried to encourage him, to which he answered, "Il n'est pas necessaire de dissimuler avec moi." He died on January 6, 1852; his surviving friend already quoted tells us that his passing caused general consternation among the blind. Their memory was not only of his rectitude of spirit but also of his extraordinary generosity. He had given up his position as organist in one of the churches of Paris in favor of a

friend whose need he considered greater. After his death one of his nieces found a box marked "Burn without opening." His executors, after some discussion, believing that the contents of the box might require some adjustment, decided to disobey his instruction. The box was full of receipts for sums loaned by Braille. The executors respected his desire and destroyed the papers.

These are all the personal details which it is possible to revive.

Public Relations

MEDICAL-ECONOMIC SOLUTIONS

(Editorial from Ohio State Medical Journal, Dec. 1929.)

The day when the physician could delegate to others his interest and responsibility in social and economic questions has passed and the new era, with its changes in social and economic orders, has been accompanied by additional and multiplied responsibilities for the medical profession, both individually and collectively.

Numerous public statements made within recent months, both by leaders in the medical profession and by the laity emphasize the point that the time has arrived when physicians must abandon a passive attitude toward questions involving the social and economic factors of medical practice, medical service and public health.

The sentiments expressed by many of these writers and lecturers indicate that the public is expecting the medical profession to take the lead on questions pertaining to medical service and public health and that the public does not expect the medical profession to shirk its responsibilities in bringing about readjustments, should they be found necessary after thorough investigation of the facts.

There is naturally a wide difference of opinion both in and outside of the medical profession as to what readjustments, if any, should be made in the economics of medical and health service to the public. Attempts to arrive at a mutual understanding of the situation are now being made.

However, there are few who will disagree with the statement that the medical profession should assume the leadership in all studies of the many involved questions and show the public that it is interested in trying to solve them or analyze and explain them in a way that will be satisfactory and beneficial to all concerned.

Dr. Ray Lyman Wilbur, Secretary of Interior, former president of the A. M. A. and chairman of the Committee on the Cost of Medical Care, in a recent address at the dedication of a new medical building at the University of Virginia, asserted that "the profession of medicine now faces a great new responsibility forced upon it by the rapid evolution of a new economic order."

"The medical profession faces a most difficult task. Made up of strong individualists dealing intimately with personalities and following the ideal of the best good of the patient, it is almost impossible to turn from their busy lives to economic thinking, and yet without economic organization the physician cannot prosper and all of our people cannot receive the benefits that they should from modern science and modern medicine," he declared.

The editor of a semi-scientific periodical who

commented editorially recently on the question of cost of medical care and distribution of medical service, is inclined to believe that some adjustments in the economics of medical practice are necessary but he feels that "with one of the strongest organizations in the country, the profession should be able as a whole either to solve the problem or to show that it is unsolvable under present conditions".

This same writer believes that "the profession can not afford to assume a passive attitude" and that every medical organization in the country, every medical journal and every physician should assist in every day possible in settling the controversy.

One conservative middle-western newspaper which has always backed the medical profession in its opposition toward excessive state and socialized medicine, declares that it is still against socialism in all forms because it is "bad in principle", and warns that the growth of bureaucracy is bound to "destroy the individualistic medical profession"; but it admonishes the profession to get busy, for "unless the profession itself evolves methods of solving questions of cost of science, etc., corporation medicine will probably become dominant within the next generation".

A Chicago newspaper offers the suggestion that doctors know more about medicine than the laity and expresses the belief that physicians will bring about some solution.

"It is not easy to work changes overnight, particularly if the changes upset long standing professional relationships and standards", this newspaper stated editorially. "If there is hesitation, it must be remembered that doctors as a class are far from being overpaid, and under the circumstances it is scarcely remarkable that the majority of the humbler members of the profession are willing to accept changes until they have some assurance that their livelihood is not to be further imperiled. *A solution of the problem of medical care for the middle classes which would result in impoverishing the doctors would be worse than no solution at all, for it is to the advantage of the community to attract able intellects into the practice of medicine.*"

While it may be said that the editor of the *Indiana State Medical Journal* seems a bit pessimistic when he says editorially that "there are indications to the effect that the medical profession as a profession is going to be swallowed and digested by outside agencies, and the medical profession is doing little to avoid the outcome", he, nevertheless, makes an appeal which every physician may well heed when he declares: "Will somebody build a fire under the medical profession and stir it into activity?"

REBATES FOR DOCTORS

(Editorial N. Y. Sun, May 6, 1930.)

The resolutions adopted by the Medical Grievance Committee of the State of New York concerning acceptance of rebates by physicians and surgeons in prescribed articles and medications say that "individuals, firms and corporations engaged in the manufacture or sale of appliances, instruments, trusses, lamps and other apparatus or equipment have made it a common practice to pay, give and grant physicians advising or prescribing for patients the purchase or use of such articles a commission or rebate on the purchase price or cost of the use thereof, which commission or rebate is generally paid to and received by the physician without the knowledge of the pa-

tient." In the same way, the committee reports, "commissions or rebates are paid to physicians by chemical, analytic, pathologic, radiographic and other laboratories, by oculists on the price paid for spectacles and lenses, and by druggists on the price paid for patent medicines, prescribed medicines, drugs and other articles dealt in by druggists."

The committee looks on this method of swelling the income of physician or surgeon with as much disfavor as a patient could. In its opinion, by "acceptance of such rebates or commissions, without disclosure to the patient, the physician conceals from the patient material facts which should be disclosed to the patient by reason of the relation between physician and patient." It is the sense of the committee that acceptance of such commissions and rebates by practicing physicians is "not alone unprofessional and unethical but that it may constitute evidence of 'fraud and deceit' on the part of the physician in the practice of medicine" within the meaning of the Medical Practice Act.

This indictment of rebate taking is not a hysterical outburst from an over-wrought and under-informed sick man or from an invalid's wife whose burden of anxiety for her husband is made heavier by the concern put on her by lack of money to pay the bills illness or accident runs up. It is the considered utterance of an official committee that has carefully studied an evil the prevalence of which some practitioners deny. What will be the next step among physicians and surgeons who uphold the Hippocratic oath against the abuse of the confidence their professional services imply? Will the men who do not split fees and who do not accept rebates go the full distance and expose their less scrupulous fellows who line their pockets with graft?

NEW MEDICAL CENTER.

(From Asbury Park Press, May 1, 1930.)

Announcing today that L. C. de Coppet, New York broker and a life-long summer resident of Shrewsbury, had donated \$100,000 for a nurses' home in connection with the Memorial Hospital to be erected on Corliss Avenue, Neptune, Dr. James F. Ackerman, president of the Ann May Hospital, also declared that ground will be broken for the new institution within 2 weeks.

The gift of Mr. de Coppet gives the new hospital group \$600,000 with which to begin construction. A. E. Fitkin, utility magnate of Allenhurst and New York, last year donated \$500,000 to the hospital as a memorial to his son, Raleigh, who died at Allenhurst, and Paul Morgan, of Interlaken, who was secretary to Mr. Fitkin. The Fitkin-Morgan memorial will be merged with the Ann May Hospital which was started in the name of Ann May Wartenbury Robinson, of Philadelphia.

Ideally situated and designed to include improved equipment of every description, the second Ann May Hospital will undoubtedly constitute a health center of which Monmouth County will be appreciative.

FOR THE CHILDREN'S SAKE

(Editorial in N. Y. Sun, April 22, 1930.)

Surely no persons who, through prejudice or for any other reason, withhold from their young children the toxin-antitoxin preventive treatment can remain quite comfortable in mind in the face

of the warning of Health Commissioner Wynne: "If their child dies of diphtheria, they alone are responsible!"

That phrase would be cruel and unjustifiable if it were not supported by the most convincing scientific evidence. It at least amounts to a flat indictment for culpable negligence against all parents who hereafter allow their children to risk contracting what the Health Department describes as the most treacherous of all the diseases of childhood.

The results of the first year of a systematic toxin-antitoxin campaign in New York City, strongly support Dr. Wynne's contention. Similar results have been noted wherever that experiment has been tried, but this city's experience brings certain facts home to New Yorkers with overwhelming force, facts easily understandable and verifiable from official records of their own city.

In January of 1920, numerous persons and organizations cooperating through the Diphtheria Prevention Commission undertook the task of carrying toxin-antitoxin to all children of the city. In the course of the first year some 200,000 received it. At the beginning it was said that 6 months must elapse before appreciable effects could be distinguished. Those effects proved startling when they did appear. In the first half year there were 325 deaths from diphtheria; in the second half year the total fell to 137, lowest for a 6-months period in the records of the city Health Department.

But that was not all, or even the most striking part of the story. The decline in the fourth quarter of 1929 was greater than that in the third, amounting to a reduction of 39% below the 10-year average for that period; the decline for the first quarter of 1930 amounted to a reduction of 50% below the 6-years average for that period. To understand what had happened the following comparisons of deaths from diphtheria in the first 3 months of the respective years will be found useful:

Year	Deaths
1923	190
1924	231
1925	190
1926	118
1927	182
1928	224
1929	170
1930	82

The keystone of the statistic arch, however, is the fact reported by the Health Department that of the 137 children who died of diphtheria in the last half of 1929 not 1 had taken a complete series of toxin-antitoxin treatments and the Schick test to determine whether immunity had been established. Two of the 137 had taken the customary 3 injections, but had not taken the Schick test, which would have shown that the treatment was not yet complete.

A NEW HEALTH INSTITUTE

(Editorial N. Y. Times, May 24, 1930.)

Blanketed by the debates over the tariff, the treaty and the Supreme Court, a bill has slipped through Congress, almost unnoticed, which will have a place in governmental history. It sets up a National Institute of Health. This has long been the dream of Senator Ransdell of Louisiana. In realizing it he has had the support of the American Medical Association, the American Public Health Association and various scientific

bodies. His bill has the endorsement of Secretary Mellon and will doubtless be signed by President Hoover, who has always taken a special interest in scientific research and in government agencies to further it.

Under the Ransdell bill the Hygienic Laboratory is made the nucleus of the new establishment, which will be devoted to the purpose of inquiring into the cause, prevention and cure of diseases. The Treasury Department is specifically authorized to accept gifts from private sources for the furtherance of these investigations, much as the Library of Congress was authorized some years ago to accept donations in its field. A system of fellowships in scientific research has been devised in order to secure the proper personnel and to encourage men and women of exceptional proficiency to devote their efforts to the war on disease. While a great deal has been accomplished by the universities, medical schools and endowed institutions, these efforts heretofore have often lacked coordination. The idea is to make the institute "a great cooperative scientific organization in which leading experts in every branch of science will be brought together and given an opportunity to work in unison for the purpose of discovering the natural laws governing human life."

The country's annual "human repair bill" runs to about \$1,000,000,000. That takes no account of loss of time or loss of life from preventable disease. Congress has appropriated vast sums for research in crops and live stock, in mines and minerals, and in the problems and processes of industry, but it has done comparatively little to further the cause of human health. The workers in the Hygienic Laboratory have shown what could be done even with meager funds. With the far larger resources that the National Health Institute will ultimately command, it should be capable of doing great things.

LET THE MALES CEASE SWELTERING!

(N. Y. Times, May 26, 1930.)

The mercury's spurt on Friday—a forerunner of broilers to come—lends appropriateness to the remarks last week of the head of the New Orleans Weather Bureau to the effect that many of the ills from which the human male suffers in hot weather are traceable to wrong clothing.

The remark is scarcely original, but it acquires interest from the fact that it is broadcast by the Department of Agriculture in one of its weekly bulletins which for so many years have been devoted to the relief of housewives, the owners of pets and millions of other citizens and citizenesses of this country. Through this medium Uncle Sam has encouraged the eating of vegetables. He has given instructions on dressmaking. He has urged the rearrangements of kitchens so as to save needless steps. He has expounded the methods of teaching a chameleon to drink (water, of course).

Now at last he has taken up the cudgels for his overdressed nephews. He urges the elimination of belts and collars in hot weather. This is a battle such as he has never fought before. In the past his suggestions have not run counter to man (and woman) made customs which decree that although the female of the specie may expose her neck the male does so at his social peril, and that the male may wear a piece of leather round his middle but is indecorous if he wear it over his shoulders. Apparently the male prefers sartorial to social hell.

Current Events

MINUTES OF THE WELFARE COMMITTEE MEETING

Trenton, New Jersey,
April 27, 1930.

Pursuant to a call of the Chairman, Dr. A. Haines Lippincott, the Welfare Committee met at Stacy-Trent Hotel, Trenton, April 27, at 3 p. m. In response to the roll call, the following named members were present: Bloom, Clayton, A. H. Coleman, J. G. Coleman, Conaway, Cosgrove, Costill, Davis, Donohoe, Ely, Emerson, Emory, Green, John F. Hagerty, D. Leo Haggerty, Hunter, Kelley, Larkey, Lee, Lippincott, Londrigan, McBride, McMahon, Morrison, Morrow, Remer, Schauflier, Schlichter, Shureman, Sherman and Sommer. The following sent excuses: Barkhorn, Dandois, Mulford and Sewall.

Report of the Secretary to the Welfare Committee

Trenton, New Jersey,
April 27, 1930.

Gentlemen:

We are pleased to report that the General Assembly of New Jersey has adjourned without having done any harm to the health laws of the state. Of the various bills pending at the time of our last meeting, March 2, those bills to which we had given endorsement have, with one exception, become part of the statutory laws, while those to which we filed objections all failed of passage.

To be more specific: A No. 1, continuing the work of the Commission on Crippled Children, was passed; A 3, requiring the signing of death certificates by physicians within a time set for burial of the decedent, was passed; A 85, providing higher educational requirements for students of chiropody, and defining the limitations of chiropody practice, was adopted after amendment in accordance with an agreement made with a special subcommittee of this body; S. 207, compelling reports to be submitted promptly to local boards of health when persons are bitten by dogs or other animals subject to rabies, was passed; S 117, providing for liens in favor of hospitals furnishing treatment to patients injured in accidents, was passed. It is to be noted that this last mentioned bill protects a hospital but makes no reference to physicians or nurses. A corresponding bill intended to cover physicians and nurses as well as institutions—A 284—was not further considered after it was agreed here to support S 117. A 202, controlling Expert Testimony, was passed in the House of Assembly but defeated in the Senate.

All of the osteopathic, chiropractic and naturopathic bills were defeated on the floor of the Assembly or were held in committees. A 93, designed to regulate the practice of surgery in its several branches, was killed in committee.

We have taken the liberty of inviting Assemblyman Newcomb to attend today's session of the Welfare Committee, in order that he might report, if he wished, any details of this year's legislative work and offer suggestions for the future.

On April 14 we learned that efforts are being renewed at Washington to revive what is generally known as Sheppard-Towner legislation, but which is now covered in the Jones-Cooper bills. We immediately filed protests with the United

States Senators and Representatives from New Jersey, stating our reasons for opposing the proposed laws, as follows:

April 15, 1930

To the New Jersey Members of Congress:

We are informed that the Jones-Cooper Maternity and Infancy Bill—S. 255—has been reported out of committee and is now before the Senate for action, and that a similar Bill—H. R. 1195—is pending in the Committee on Interstate and Foreign Commerce of the House of Representatives.

May we take advantage of the occasion to again advise you that the Medical Society of New Jersey, comprising nearly 2500 practicing physicians of this state, is opposed to the enactment of either of these proposed laws. We believe that control and direction of such public health matters rest with the individual states and should not be taken over by the Federal Government. We respectfully direct your attention to the fact that New Jersey was properly and satisfactorily caring for maternal and infant welfare years before the old Sheppard-Towner Act was adopted; that the conditions in New Jersey were not benefited or improved by acceptance of the terms of the Sheppard-Towner law; and, that 7 years' experience with that law did not help the nation one particle. It is true that there has been some slight improvement in maternity and infant mortality during the past 10 years, but a careful study of the records will convince you that such improvement was just as marked in states that *did not* accept the provisions of the Sheppard-Towner Act, as in states that *did*; in fact the showing is better in Connecticut, which rejected the Sheppard-Towner plan, than in New Jersey since the plan was accepted.

We object to reenactment of the Sheppard-Towner Act—and that is what the pending measures amount to—because:

(1) Such legislation constitutes federal encroachment upon state's rights.

(2) Such laws would establish a bureaucracy in Washington, where purely medical matters will be directed by medically untrained laymen.

(3) Seven years' experimentation with the Sheppard-Towner Act proved absolutely fruitless—save to a small group of office holders.

(4) The \$7,000,000 (approximately) expended by the national government added to a like sum from the several states was largely wasted. Neither the nation nor the states can afford to repeat such wastefulness.

(5) It is unfair to tax progressive states, that do look after the health interests of their people, to give to backward or careless states that do not show active interest in the welfare of their own citizens.

(6) It is unwise, if not beyond the constitutional privileges, for the national government to enter into the practice of medicine in the states; just as unwise and as wrong as it would be to interfere with the public schools or the police force.

We trust you will use your influence in opposition to the Acts above mentioned.

Sincerely yours,

Henry O. Reik, M.D.,

Executive Secretary,

Medical Society of New Jersey

We are in receipt of a letter, dated April 21, from Dr. Woodward, Director of the Bureau of Legal Medicine and Legislation of the American Medical Association, commending this letter to our representatives, requesting that copies of it

be sent to other Congressmen interested in the matter, and expressing appreciation of the support this society has given to the national association.

The Statewide Antidiphtheria Campaign Committee has inaugurated a new plan for special activity in the direction of immunization of pre-school children, and as part of that campaign requested the state society to issue a special letter to each of its members; thus following up information and advice published in the Journal during recent months. After consultation with Dr. Morrison, we consented to request the Welfare Committee to carry the expense of printing and mailing such letters provided the campaign committee would provide for the cost of postage. That letter has been issued and we ask you to approve payment of the above mentioned obligation, amounting to \$55.

The Primer for our Woman's Auxiliary, publication of which was authorized at the meeting of February 2, has been distributed and we hope that a copy has reached the home of every member of the state society. As a matter of courtesy, we sent copies of that Primer to some of the officers of the A. M. A. and to several members of the National Woman's Auxiliary. To our surprise, the Primer brought forth a number of letters heartily commending this society for the support given to the auxiliary movement and speaking in most flattering terms of the booklet. The National Auxiliary has already republished a part of the Primer for distribution to all other state auxiliaries, and 3 states have, through their medical society officers, asked the privilege of having the Primer reprinted for use in their respective territories.

Respectfully submitted,

Henry O. Reik, M.D.,

Secretary, Welfare Committee

Upon motion of Dr. Hunter, the committee approved the Secretary's expenditure of \$55 in issuing the Antidiphtheria Campaign letter and authorized payment of that bill from the Welfare Committee budget.

Dr. Elbert S. Sherman, Chairman of the Special Committee to confer with the Gilbert Acceptance Corporation, presented the following report:

The subcommittee on the Gilbert Acceptance Corporation had an interview a few weeks ago, at my office, with the President and one of the directors.

The corporation, we find, has 2 purposes. The one most stressed is a plan to finance the accounts of physicians and dentists by loaning money on the secured note of the patient, the note to be paid by instalments extending over a period of 10 months. The note must be secured by 2 responsible endorers or by good collateral.

There is no apparent objection to this plan, provided it is conducted by men of ability and integrity with adequate financial backing. However, we doubt that there are many physicians who would not gladly extend credit directly to their patients if given a secured note, without the intervention of a financing corporation.

The second purpose is to sell stock in the corporation. Its capitalization is 25,000 shares. This is offered at \$20 a share. When we asked Mr. Gilbert how much of the stock had been paid for, he admitted that none of the capital had been paid in. When asked for a financial statement of the company, he was unable or unwilling to fur-

nish one. Endorsement of this company by the Welfare Committee would undoubtedly be an aid in selling stock to our members. As an investment the stock must be classed as very speculative.

The subcommittee feels that it would be unwise for the Welfare Committee to give its endorsement to any venture of this sort.

Elbert S. Sherman,

Chairman of Committee

Upon motion of Dr. Schaufler, the report was accepted and the Welfare Committee again declared that it could not endorse the Gilbert Acceptance Corporation plan.

(At this point it seems well to insert a portion of the letter which the Executive Secretary wrote to the President of the Gilbert Acceptance Corporation, under date of January 22, 1930, and which constituted the basis of action when the Welfare Committee on February 2 first rejected the Corporation's proposition; we do this because the Corporation has claimed that some members of our society have not understood why the plan had not been endorsed by the State Society.) To Mr. Gilbert we wrote:

"If I understand you correctly, this matter was submitted to me at the suggestion of Dr. McBride and with the expectation that I would review the business proposition and submit the whole question to the Welfare Committee of the Medical Society of New Jersey at its next meeting.

There is no fixed time for the Welfare Committee to meet but as it holds frequent meetings during the Winter and the next one will probably occur on Sunday, February 2, I shall be glad to lay this matter before the committee at that time if the pressure of other problems does not render the occasion inopportune.

I think it would be only fair to say, however, that personally I am not favorably impressed with the proposition submitted. I object, on general principles, to extension and application of the 'instalment plan' to the purchase of professional services. I am fully aware of the fact that many business men have advocated instalment buying and believe it has been one of the sources of so-called *prosperity* in the United States during recent years. I am also aware of the fact that many other business men believe it is or is rapidly becoming a curse to American business. I agree with the latter group. It is not many months since business men were trying to tell us that all the laws of mathematics had been suspended by 'modern business' and that everybody could get rich by disregarding the old rules that governed investments and speculation. The recent 'catastrophe' in Wall Street disposed of their arguments. The alleged prosperity of thousands of American families will some day shatter the instalment proposition. What your plan proposes is not truly 'paying for medical service out of income' but the devising of another scheme for borrowing money and running the individual further into debt.

I am reminded of the witty review of a medical book published some years ago, wherein the critic stated, concerning the contents of the book: 'What is good in it is not new, and what is new is not good.' I think that applies to the Acceptance Corporation plan. Patients have always been able to borrow money to pay for medical or any other services, and today they can borrow

from banks on exactly the same scheme you propose (two substantial endorsements upon a note) and can borrow on better terms. One of your advertisements says 'patients pay interest at the rate of 6% per annum, completing payments in 10 months,' but if the patient figures out the expense as shown in your pamphlet, he should be able to learn that he actually pays a little more than 10% per annum for the privilege of settling his doctor bills in this manner.

Another feature of the plan holds out to the physician an alluring proposition which on the surface seems to offer to take off his hands all his uncollected accounts and pay him cash for them; but a little investigation discloses that you only propose to accept his good (collectible) accounts; a proposition that any other collection agency will agree to."

Dr. George N. J. Sommer, Chairman of the Special Committee to arrange for a State Society Exhibit at the Annual State Fair, to be held in Trenton, reported that he had secured the privilege of having such an exhibit at the Fair but desired information as to whether there is any available fund to cover the cost of such an exhibit. He did not know how much money would be necessary, because any estimate would depend upon the character of exhibition decided upon.

Dr. Morrison, referring to legislative experiences of the past 2 years, suggested that the special subcommittee which had previously considered the so-called "Surgery Bill" be requested to reconsider that matter very carefully, taking a year, if necessary, for such purpose, and report to the next year's Welfare Committee.

A lengthy discussion followed, participated in by Drs. Lee, Costill, Emerson, John F. Hagerty, Lippincott, Davis, J. G. Coleman, and Morrison, at the conclusion of which Dr. Hunter moved that this question be referred back to the same committee for a year's study and report back to the Welfare Committee. The motion was seconded by Dr. Ely and unanimously adopted.

Dr. Schaufler asked for a report upon the present status of Post-Graduate Courses, and Dr. Cosgrove reported that the plan had met with phenomenal success, there being at the present time 12 courses under way with a registration of more than 400 subscribers. He announced that a more complete report, with recommendations, will be made to the House of Delegates at the Annual Meeting in June, but requested that the Welfare Committee recommend to the House of Delegates approval of the Rutgers plan to be then submitted, which will probably be accompanied by a request to the legislature for a special appropriation to cover such extension courses. Upon motion of Dr. Schureman, the committee adopted that recommendation.

Dr. Ely called attention to the Hospital Lien law, and said it had been suggested to him that physicians and nurses might be protected by including their accounts in the hospital bills presented.

Dr. McBride said that such action was neither provided for nor implied in the law.

The meeting then adjourned.

Respectfully submitted,

Henry O. Reik, M.D.,

Secretary, Welfare Committee

REPORT OF TWENTIETH ANNUAL CONFERENCE OF STATE AND LOCAL HEALTH OFFICIALS

Submitted by D. C. Bowen, Director of Public Health, Trenton, N. J.

Attendance of unprecedented size marked the Twentieth Annual Conference of State and Local Health Officials held at Trenton on February 14. Delegates to the number of 187 from 116 municipalities and townships in 20 counties met at the State House at the call of the Director of Health.

Papers presented and discussed at the afternoon session included, "Exclusion from School of Communicable Disease Contacts", by Wm. H. MacDonald, Acting Chief, Bureau of Local Health Administration, State Department of Health; and "The State District Health Officer", by Frank W. Laidlaw, M.D., District Health Officer of the southern tier of counties in New York State. In the evening, Edgar H. Doll, Ph.D., Director of Research of the Training School at Vineland, called attention to "Public Health Aspects of Mental Hygiene". Wallace T. Eakins, Assistant Epidemiologist of the State Department of Health, outlined "The Present Status of Diphtheria in New Jersey".

Variety was introduced into the afternoon session by a playlet called "Putting Up the Sign", and described as a humor-coated lesson in disease control. The skit was written and presented by Cecil K. Blanchard, Assistant Epidemiologist of the State Department of Health, aided by his daughter, Miss Elinor Blanchard.

Roll call by counties, in which each delegate had an opportunity to introduce himself and announce the name of his municipality proved entertaining. The evening session was opened with moving pictures. An increased number of health officers who are serving 2 or more sanitary districts was revealed by the roll call; 9 such combined districts now exist in the State, 1 of them including a city and adjacent boroughs. This means of securing the services of a full-time licensed health officer for a group of communities having common problems and interests, and at a moderate cost to each, evidently is appealing more and more to health boards.

Description of New York's State health organization in respect to division of the state into 16 districts, in each of which is placed a State District Health Officer, was given by Dr. Laidlaw. The district health officer is a representative of the State Health Department and is paid by that Department. He coöperates with local boards of health and their officials, acting as a public health leader in his district and as a connecting link between local bodies and the central health bureaus at the capital.

D. C. Bowen, Director of Health of New Jersey, opening the discussion, pointed out that New Jersey now has 2 such districts, one embracing Gloucester, Salem and Cumberland counties and most of Camden County, and the other comprising Monmouth County. Local health officials from both districts testified to the success of the plan, and its value to them.

Resolutions adopted by the Conference favored increasing the number of these districts and urged the Legislature to grant the appropriation asked by the State Department of Health to place 4 additional District health officers in new districts. Six such districts would include most of the state.

"Prevention of the spread of communicable dis-

case among school children in any community is not likely to be successful unless there is co-operation between local public health and school officials in applying a workable program", said Mr. MacDonald. "Such a program should deal with the exclusion from school and the readmission of children and teachers affected by communicable diseases or who have come in contact with persons having such diseases. It should also include a system of reciprocal notification of cases and of the investigation of both known and suspected cases."

Detailed suggestions for dealing with cases, with other children exposed in the home and with contacts outside the home were given in 12 diseases common among children. Mimeographed copies of the suggestions were distributed to delegates and soon these suggestions are to be published in booklet form.

Dr. Allen G. Ireland, Director of Physical and Health Education of the State Department of Public Instruction discussed the paper. Commenting on the procedure recommended for carrying the suggestions into effect, Dr. Ireland said: "Here are words that I picked—coöperation, workable program, exclusion, readmission, contacts, reciprocal notification and investigation. We have in that list the things that should be done. Coöperation is needed in this particular work of prevention and control of communicable diseases in public schools."

Charts were used by Mr. Eakins, to illustrate his paper on "Who Gets Diphtheria Now-a-Days". In addition to the reduction of diphtheria death rates to one-tenth those of 40 years ago and the marked drop in case rates, a significant reduction during the last 3 years in the proportion of cases occurring in children between 5 and 9 years old was pointed out. This reduction was believed to be due to the extensive use of toxin-antitoxin among young school children. A study of special records of 703 cases of diphtheria, reported in 1929 in a number of New Jersey cities and towns where diphtheria prevention campaigns have been carried on, was summarized by Mr. Eakins. It was found that 638, or 90% of the cases, had occurred among children who had not received toxin-antitoxin; less than 3 doses had been given to 20; and 13 children contracted diphtheria before immunity could be expected to develop. Only 32, or 4½% of the cases, were in children who had been given 3 doses of toxin-antitoxin 3 months or more before illness developed. Inasmuch as it had already been shown by the speaker that 25% of children in rural New Jersey require more than 3 toxin-antitoxin treatments to secure complete immunity, the occurrence of this small percentage of cases among treated children was not surprising. Three of the 32 were reported to have given negative Schick tests subsequent to preventive treatments. "In this connection", said Mr. Eakins, "It should be borne in mind that performance of the Schick test requires an exact technic, any deviation from which may cause a false negative reading."

That public health workers are beginning to reckon with *mental hygiene* as a vital factor in community welfare, was asserted by Dr. Doll. Among the resources upon which health and welfare officials may call when dealing with mental hygiene problems, the following were named: mental clinics serving schools; the courts and other public institutions; welfare departments of industry and labor; and psychiatrists and psychologists connected with public and private institutions.

Woman's Auxiliary

ANNUAL MEETING OF NATIONAL AUXILIARY

Plans for the annual meeting of the Woman's Auxiliary to the American Medical Association, Detroit, June 23-27, come on apace. The auxiliary, as an organization is occupied only with business affairs and has nothing whatever to do with an social gatherings except the official Auxiliary Luncheon. The Roof Garden of the Hotel Tuller, next to the Statler, will be headquarters for all Auxiliary business—registration, meetings, etc. and the luncheon on Tuesday, June 24. There will be no registration fee, but members will buy their own luncheon tickets—\$1.50. The registration bureau will be open Monday, Tuesday and Wednesday, June 23, 24, 25, from 9-4; Thursday and Friday, June 26, 27, from 9-12. Programs, badges, etc., may all be procured here, and invitations, tickets and transportation cards must all be procured here *in advance*, as only program may be procured elsewhere.

The meetings, as you all know, are open to every woman attending the convention, and under Mrs. Hoxie's leadership they are bound to be well worth the trip. There will be 3 morning sessions -- Tuesday, Wednesday and Thursday, June 24, 25, 26. The afternoons and evenings are all left free for sight-seeing and social activities for which many plans are in the making. Details have not yet been announced, but they include motor and boat excursions, and visits to some of the handsome private estates in the environs, including that of Mr. Henry Ford. The Detroit Museum of Art is among the best in the United States. No parties have been scheduled during business hours.

No one may represent her state in any capacity whose State Auxiliary dues are not fully paid. The Chairman of the Committee on Credentials and Registration is Mrs. Ledru Otway Geib, 3860 St. Clair Avenue, Detroit.

Only delegates may take an active part on the floor of the convention, but alternates should attend all sessions and hold themselves in readiness to take their delegates' place if necessary. All resolutions must be in writing and signed, and in the hands of the committee 24 hours before the session at which they are to be presented. Mimeographed copies will be distributed as the delegates take their seats. The Chairman of the Committee on Resolutions is Mrs. Augustus S. Kech, 218 Logan Avenue, Altoona, Pa.

Bergen County

Reported by Mrs. E. W. Clarke

The May meeting of the Woman's Auxiliary to the Bergen County Medical Society, was held at the Chestnut Tea House, in Bogota, on May 13. About 20 of our doctor's wives were present at a luncheon in honor of our State President, Mrs. James Hunter. Another honored guest was Mrs. Roy Van Ness, President of the Essex County Auxiliary.

A short business meeting, with our President, Mrs. Michael Sarla, in the chair, preceded the luncheon. Words of greetings from our honored guests followed, then cards were enjoyed.

Mercer County

Reported by Mrs. George N. J. Sommer

Delegates to represent the Woman's Auxiliary of the Mercer County Medical Society at the state convention to be held in Atlantic City in June were named at the luncheon held May 6 at the Peacock Inn, Princeton. They are: Mrs. John Sill, president, Mrs. Frank G. Scammell and Mrs. James J. McGuire. The alternates are: Mrs. Dunbar Hutchinson, Mrs. George N. J. Sommer and Mrs. D. Leo Haggerty.

To prepare the ballot for election of officers, the following Nominating Committee was appointed: Mrs. Scammell, chairman, Mrs. Walter E. D'Arcy and Mrs. McGuire. Reports were given by Mrs. Ernest F. Purcell, the secretary, and Mrs. L. Samuel Sica, treasurer. A letter of sympathy was sent to Mrs. Joseph L. Gariss.

Interesting talks were given by Mrs. James W. Hunter, Jr., of Westville, president of the Women's Auxiliary of the State Society, and by Dr. William G. Schauflier, of Princeton.

Mrs. F. A. Thomas and Mrs. T. B. Tompkins, of Flemington; Mrs. I. Topkins, of Califon, and Mrs. T. B. Fulper, of Hampton, members of the Hunterdon Auxiliary, attended the luncheon. Among the members of the Mercer Auxiliary in attendance were: Mrs. E. B. Beairst, Mrs. W. J. Abbey, Mrs. Sill, Mrs. Scammell, Mrs. Hutchinson, Mrs. D. M. Yazujian, Mrs. Purcell, Mrs. D'Arcy, Mrs. McGuire, Mrs. Sommer and Mrs. Sica.

Members of the Auxiliary are invited to accompany their husbands to the medical meeting to be held at Skillman on Friday afternoon, May 23, at 3 o'clock.

County Society Reports

ATLANTIC COUNTY

Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The meeting of the General Staff, Atlantic City Hospital, was held April 25, Dr. David B. Allman, President, in the chair. Dr. Allman announced this as the second of a series of clinics and that it is the purpose of the Staff to hold a clinic every third month. He welcomed members of the medical profession of Atlantic and adjacent counties to participate in the discussions.

Joseph Carlin, aged 4, a recent patient, presented a lesson in anatomy by naming all the bones of the body.

Dr. Wm. E. Darnall presented a dissertation on "Safeguarding the Patient": Not many years have elapsed since it was customary that patients were admitted to the hospital and operated upon either immediately or on the following day, if they presented no serious expression of severe illness. What is and what is not a good surgical risk?

In my past experience a great many persons have come into the hospital looking the picture of health, yet who might have a fibroid tumor, or a cystic ovary, and after operation the kidney would block up, or for some other reason the patient would die and we were filled with disappointment. On the other hand, a patient came in

looking dragged out and in poor condition, and would come back from a serious operation very much improved. How can we determine what is a good risk?

In routine procedure the first things to be done are urinalysis, complete blood count and a Wassermann test. We know that the patient with a red cell count of around 2,000,000 and a hemoglobin of 50% or less is a poor operative risk; prone to infection, bronchitis, pneumonia, or all the complications. The leukocyte count is also very important; degree of leukocytosis interprets for us just how serious the patient's condition is. In appendicitis it mounts rapidly by the hour. In the average pelvic disturbance it is not quite so high. The sedimentation test is a very fair measure of the proper time to operate; if the reading is down to 25 we know that the case is too acute. Blood pressure is also important, especially in cases of low vitality and poor nutrition; below 100 it is unsafe to do anything and we must take steps to increase it. Blood pressure is taken every 5 minutes while the patient is on the table and when it gets down to 100 we know we must stop or we will lose the patient from shock. To avoid contamination we insist on a catheterized specimen of urine, as this is the only way we can have an accurate diagnosis of the kidney condition from urinalysis. We have also found the phenolsulphonthalein test of importance.

With a kidney function test of 40-50, operation is safe; but not when it is lower. Every patient is given a thorough physical examination, and from this survey we save a great many more lives; taking less risk because we know where the danger points are and how to avoid them.

I think as we get more experience with radium we realize it is far from an innocent method of treatment and needs very careful handling. In treatment of carcinoma of the cervix one thing we have to contend with is anemia. Patients come into the hospital after bleeding a long time, and with a low blood count; they should not have radium because they may die very suddenly. We should not use radium unless we work out the exact dosage for each individual case. It is possible to have frozen sections made of a biopsy specimen and if the report comes back carcinoma we can arrange for radium treatment. Technic and care are most important.

Dr. Theodore Senseman spoke on "Surgical Goiter".

Out of my recent service, I have selected 4 patients who have kindly consented to be here.

Case 1. Mrs. H. came to me with enlarged thyroid and beginning symptoms of hyperthyroidism; tremor, restlessness, increased appetite, anxiety, and fullness in the throat with difficulty in swallowing and beginning hoarseness due to pressure. The thyroid became enlarged after her first baby 10 years ago, which brings up the question of the influence of pregnancy on cases of toxic goiter. It seems quite plausible that disturbed metabolism, need for more iodine than usual, causes the gland to work harder, but when the necessity for this ceases the gland does not know how to cease functioning; it keeps on going, developing colloid material, and we have a colloid goiter.

We must remember that all the simple goiters—colloidal, adenomatous—can become toxic. Fibrous goiters do not become toxic but do produce hypothyroidism.

This patient was operated upon on Jan. 16; her pulse is now 82 and she shows good control of her nerves, no tremor, and the wound is entirely healed.

Case 2. Mrs. Z had a supravaginal hysterectomy in 1928 for fibroid uterus and cyst. In 1929 had a phlebitis. On March 23, 1930, she was operated upon for colloid goiter. The gland had enlarged in the past 6 months and symptoms had become pronounced. Her basal metabolism reading was around 22, and we considered it negligible and operated; she was discharged April 7.

Case 3. Exophthalmic goiter. Severe case with all the toxic nervous symptoms plus a mild degree of exophthalmic change. Basal metabolism at the first operation, in 1929, was 50; pulse 90 to 154. For about 5 years she had noticed dull pain, enlargement, rapid heart, suffered from the cold weather, and had excessive appetite. We removed the left lobe as far as the isthmus. She was in the hospital 14 days, had a stormy recovery, and left in a fairly good condition.

The last operation was April 14, 1930, when the basal metabolic rate was 56. We removed the right lobe, which had become quite large. Pulse rate is now 72.

Case 4. Had been incorrectly diagnosed as toxic adenomatous goiter. She did not have the eye symptoms; was very nervous. Basal metabolism varied greatly from day to day. We know it was not adenomatous from the character of the gland at operation and from Dr. Kilduffe's report. Tissue examination showed hyperplasia of the parenchyma, overgrowth of cells lining the acini, and the patient had exophthalmic goiter. Pulse is now 82.

I think the medical man should realize that these goiters are more surgical than medical and should be sent to the surgeon as soon as they fail to respond to treatment. If we can get them soon enough we can bring about results. If men like Mayo can treat 7000 cases with only 2% mortality they prove that we can get brilliant results if we get them early enough.

Dr. Hilton S. Read presented a paper on "Basal Metabolism", which he defined as "the minimal heat produced by an individual measured from 14 to 18 hours after the ingestion of food and with the body at complete muscular rest but not asleep". This is not exactly true in that metabolism is lower after a prolonged period of under-nutrition or while asleep and so the term standard metabolism or postabsorptive metabolism was suggestive. However, the term basal metabolic rate is so generally accepted that the other more exact terms have been accepted only by the academically correct scientists. It is, in truth, an index of the physico-chemical activity of the individual cells. The direct measurement of this heat production is a difficult task, requiring much time and a most intricate apparatus. The indirect method of measuring the output of carbon dioxide and the intake of oxygen by the human body during any given period has been made relatively simple. Determination of the basal metabolic rate has found its chief clinical application in the study of patients with suspected thyroid disease, hyperthyroidism bringing about an increase and hypothyroidism a decrease in the rate. However, the bugaboo of machine-made diagnoses still exists, and we cannot have a patient simply breathe into one end of the apparatus and the diagnosis majestically float out the other end, any more than the roentgenologist can turn on his rays and have a film come out stamped with the diagnosis.

Many factors influence the basal metabolic rate. Age, sex, body surface, room temperature and barometric pressure have a direct bearing on the reading. Proper preparation of the patient is

most important. It is quite generally accepted now that hospitalization of patients for mere determination of the basal metabolic rate is unnecessary. It is our practice, both in hospital and office, to use the Benedict-Roth type of respiration apparatus. In the past 5 years we have found this apparatus very satisfactory and frequently have had the opportunity of having the determinations thus made checked by the more exact direct determination methods with an error of not more than 2%.

Assuming that the basal metabolic rate is taken as a piece of evidence and not as a verdict, it can be of inestimable value as a routine procedure in the obscure diagnostic problem, sometimes revealing an unsuspected endocrinopathy.

Dr. Read also presented a case of "Giardiasis". This is a common infection in tropical countries but is becoming more common in the temperate zone. It infects the duodenum and gall-bladder. Specimens of bile were shown containing millions of flagellates. It presents the symptoms of neuro-conditions—twitching, indigestion and nervousness. Hot water was instilled into the duodenum without much success. A single dose of nearsphenamin, which is supposed to be specific, has proved successful.

Dr. James H. Mason presented a case report on "Giant Cell Tumor of Bone". These are occasionally malignant, grow slowly, occur in the lower end of the femur and the upper end of the tibia, do not cause metastasis, expand the bone abruptly and occasionally pierce the periosteum. In radiograph the tumor has the appearance of soap bubbles.

Mrs. L. H., 39 years of age, white, married, 4 children, began in the winter of 1928 having slight swelling accompanied by some pain in the left wrist. In the spring of 1929 she was unable to do her housecleaning. In August she went to strike one of her children and missed him but she felt that her wrist snapped and severe pain followed. She consulted a doctor because of this pain and after x-ray examination a diagnosis was made of benign giant cell tumor and she was referred to me for treatment.

The fact that the tumor was slow growing, was situated in the interior of the long bone, near the epiphysis, not producing any metastasis, and expanded abruptly, the problem came up as to what to do: use x-rays, operate, or treatment with radium. I operated.

These cases are sometimes treated as osteomyelitis; the outer covering may be removed and a curettement done. If all the mass is removed it will not recur. In cases that are very extensive, in which practically all the cortex is destroyed, it is necessary to do a bone transplantation. In this case the tumor was through the periosteum, on the lower end of the ulna. We cut down upon the mass and took hold of the bone which crumbled, and could see no evidence of any fracture line. It was impossible to do a curettement. The only thing left to do was to remove the bone and mass and do a transplantation. We considered the lower end of the bone of sufficient density to leave it remain, inasmuch as the growth had not extended through the end of the bone or articular cartilage. A piece of bone was taken from the tibia for the transplant.

Latest radiographs show the graft at the upper end has taken very well but the lower end has some recurrence of the condition.

Dr. Wm. C. Westcott: "Aneurysm of the Pulmonary Artery with Roentgenographic Interpretation".

Aneurysm of the pulmonary artery is rather rare. One case has been reported in the country, the diagnosis being made at the Mt. Sinai Hospital in New York City. Bordet, in Paris, has reported 2 cases, and provisionally 3. Statistics from Russia show that out of 25 cases of thoracic aneurysm only 2 were found to be of the pulmonary artery. The patient whose roentgenograms were demonstrated came in to the hospital complaining of dyspnea on slight exertion.

Dr. Sidney Rosenblatt presented the following case and report of "Encephalitis". On account of the multiplicity of symptoms this case could be mistaken for one of multiple sclerosis but he has no spastic paraplegia, no increase of deep reflexes with Babinski, no disturbance of sphincters, no numbness or tingling, no emotionalism, no intention tremor, and no optic atrophy. Of Charcot's triad only the nystagmus is present.

C. C., complained of pain in back of head and general weakness, for 2 weeks. Of gradual onset, steady, unremitting pain. Numb feeling in right hand began at same time and also feeling of weakness in both legs; at first needed a stick, but now cannot walk with stick. No paresthesias or anesthetics in limbs. For 6 months previously patient had been feeling progressively sleepy; likewise stiffness in back of neck on moving head around. Denies severe cough, but coughed blood 6 months ago. No loss of weight or night sweats. Cardiac history negative.

Routine cell count on spinal fluid—8 per c.mm. Sugar present. Globulin slight increase. Spinal fluid Wassermann negative.

I believe this case is one of atypical encephalitis because of the history of a possible attack of influenza, the mask-like face, the stuporous condition on admission and signs such as drooping eyelid (left), nystagmus, tendency of the tongue to go to the left when protruded, loss of epicritic and asteriognostic sense in the right arm, no muscle atrophy, loss of abdominal reflexes, loss of deep reflexes and Babinski, inability to guide legs to walk, negative blood and spinal fluid Wassermann on 2 different occasions and the negative radiograph of the skull.

Dr. Samuel Barbash presented a paper on "Bronchial Asthma". We have had a number of patients in the past who developed bronchial asthma in the spring, summer and fall months. Most of these were due to pollens, although some had more than one cause. A year ago I reported a case of bronchial asthma due to protein absorption from an acute hemorrhagic nephritis. Her asthma disappeared as soon as her kidney condition was cleared.

There are few known substances containing protein which have not been held responsible for an attack of bronchial asthma; articles of food or clothing, furs, feathers of fowls and birds, hair and dander of animals, plant pollens.

History taking in these cases is very important. As an illustration, I will cite the case of a young man who for a period of 8 years suffered from acute bronchial asthma around the periods of the important Jewish holidays. On being tested he was found to be highly susceptible to goose feathers. Upon further investigation it was found that he lived 2 doors from a store dealing in live poultry. In those days it was permissible to sell live fowl anywhere in the city. Going past the crates containing geese was sufficient to start an attack of bronchial asthma. The commissioners of Atlantic City unconsciously assisted in his treat-

ment by passing an ordinance restricting the places where live fowl could be sold, some distance from this patient's neighborhood. A dilution of goose feather protein was made. He was given hypodermic injections, starting with 1 minim of a 1:10000 solution, and gradually increasing the dose until he received 15 minims of a 1:100 solution. Since that time, which was in 1922, he has had but 1 mild attack of bronchial asthma, which responded promptly to treatment.

Another interesting phase of this peculiar condition is that patients may be susceptible to the pollens of various plants, and in addition have a susceptibility to some other protein. I have in mind 1 patient who was susceptible to dog hair, besides the pollen of timothy and poplar in the Spring, and ragweed in the Fall. She had asthma the year round. She was very much relieved by having the family dog removed, and later entirely relieved by being given pollen extracts for her seasonal asthma. It is interesting to note that since her susceptibility to the pollens has been lessened, she is also less susceptible to the protein of dog hair. Another patient, besides being susceptible to Spring and Fall pollens, was found to give a marked skin reaction to orris root. The removal of face and tooth powder containing orris root went a great way toward alleviating her suffering.

Pine Rest Sanitarium

Harry Subin, M.D., Reporter

The regular monthly meeting of the staff of the Pine Rest Sanitarium was held April 10, at 8:30 p. m. Members present: Drs. Hudson, Salasin, Kilduffe, Marcus, McGeehan, Allman, Guion, Kaighn, Walker and Mr. Conover. The minutes of the previous meeting were read and approved. There was no old or unfinished business. A letter from Dr. H. O. Reik to Dr. H. Subin was read, and it was regularly voted that the proceedings of the staff meetings be sent to the Journal of the Medical Society of New Jersey for publication.

Dr. Allman moved and Dr. Kilduffe seconded a motion to have an "outing" in place of the regular meeting in May, and Drs. Guion and Kilduffe and Mr. Conover were appointed as a committee to decide upon a program; Estelleville was suggested as the site for the affair.

Dr. Salasin read a paper entitled "Tuberculosis in the Young", saying, in part:

If ever the well-known saying that "familiarity breeds contempt" found justification, I believe it is in our present-day attitude toward the problem of tuberculosis. This disease is probably the first of the great human scourges against which society made a deliberate and organized campaign. For almost 30 years the public, the medical profession, the government and all groups concerned have been untiringly spreading propaganda of counsel and advice concerning the prevention of tuberculosis. Statistics prove that these efforts have been productive; 30 years ago the death rate from tuberculosis was 3 times as large as it is today, but while the progress made is remarkable, there exists a lamentable tendency to underestimate and disparage significance of the present problem. The job is far from being completed. There is still a high morbidity and mortality rate from tuberculosis in the early span of life.

That children do have this disease is an established fact; indeed tuberculosis usually begins in

childhood. Early discovery is desirable; to anticipate the disease before it has taken root is even better.

It is quite possible for a child with glandular tuberculosis to have no symptoms but as a rule the signs that it presents are grossly, underweight, slight weakness, loss of appetite, easily tired, irritable and at times feverish. These symptoms may indicate other illnesses as well as tuberculosis, so if there is any doubt as to the child's health he should be given a complete physical examination. The examination should include the tuberculin test and a radiogram.

Inasmuch as tuberculosis in children first manifests itself in the glands it can usually be prevented from developing into other forms if prompt and proper treatment is instituted. It is not possible to treat all patients alike. In some instances it is absolutely necessary to place them in sanitariums for rest and cure. Others may safely receive treatment and supervision at home. Still others may be able to attend open-air schools. They should be relieved of all possible strain. Plenty of sleep at night with open windows and special rest periods during the day. Strenuous exercises and fatigue must be avoided. Too much stress cannot be given to proper food, sunshine and fresh air. Defects, such as bad teeth and tonsils must be corrected and everything done to build up the general health.

I am sure that the medical profession is well acquainted with all these facts, but knowledge alone is not sufficient. To further reduce the morbidity and mortality rate it behooves every physician to spread this gospel, and to *advocate strenuously the periodic examination of suspected children.*

DISCUSSION

Dr. Marcus: Dr. Park, of Johns Hopkins University, compares the course of tuberculosis with that of syphilis. No physician would think of allowing the first and second stages of lues to pass unrecognized and untreated and wait for appearance of the destructive stage. However, that is what often occurs in tuberculosis; early stages frequently pass by untreated or unrecognized and often the fatal third stage develops. Dr. Charles H. Smith advocates certain steps in preventing spread of tuberculosis: (1) Separation of children from parents. (2) Temporary adoption—as practiced in Paris. (3) Adoption by charity organizations—as practiced in Baltimore. (4) Sanitariums for babies. (5) Enlightenment of laity to dangers of tuberculous infection. (6) As medical men, to do all we can to make these things understood. (7) Catering to the emotions of parents.

The question next arises, why is the baby singled out? Is low resistance a factor? The infant is helpless to prevent the too intimate contact between himself and members of the household. As he lies in his crib, he handles objects and places them in his mouth. Later he creeps or runs about, handling all the while, dust-laden objects covered with organisms. The infant exemplifies the experiment of "all or none"—either massive infection or none at all.

Diagnosis of tuberculosis in children is based upon 4 important points: (1) History of exposure is very important, delving fully into the medical history of uncles, aunts, constant members of family and even the daily routine of the infant. (2) Physical examination. (3) Tuberculin test. (4) X-ray examination. Do not wait until the diagnosis becomes obvious. Once the diagnosis

has become established, prompt and proper treatment is indicated.

Dr. Kilduffe: Tuberculosis is not inherited, but acquired. Autopsies show a marked proportion of healed lesions significant of a certain amount of immunity. To properly treat a child, he must be removed from a tuberculous environment. The artificial production of immunity to tuberculosis in children, of which the Calmette method is one type, has been discussed; as yet, it is experimental; it shows evidence of ultimate value.

The percentage of bovine tuberculosis in infants is unknown because the organisms are seldom cultured to determine type. I believe that infants are preponderantly infected by the human type, as, at present, milk control makes infection by the bovine type less frequent.

Dr. Kaighn: It might be well for the Pine Rest Sanitarium staff to interest itself in the drive to combat tuberculosis in children, perhaps by radio talks, talks before public organizations and so forth, which might be of value in saving the lives of many tuberculous children.

Dr. Hudson: One of the first things to be done is to educate the public. Atlantic County has appropriated \$1500 for the treatment of tuberculous children up to the age of 14 years. Part of this amount, however, is expended for visiting nurses.

Dr. Salasin: While progress has been made, still there is a great deal to be done. The morbidity rate of tuberculosis in childhood is low, probably due to the fact that much unrecognized tuberculosis exists. Tuberculosis now holds fourth place as a cause of death in childhood. The public has been taught to think of tuberculosis only with relation to adults. An infected child is a source of infection to other children, just as are adults. The medical profession must teach and educate the public to think of tuberculosis as a disease of childhood.

The possibility of a vaccine for tuberculosis would offer a solution of the problem, but it is still experimental. Reports from France are encouraging.

The Atlantic County Tuberculosis Committee has sponsored a drive for eradication of juvenile tuberculosis. Radio talks and newspaper articles are already planned for this month.

BURLINGTON COUNTY

R. I. Downs, M.D., Reporter

A regular meeting of the Burlington County Medical Society was called by the president, Dr. J. Emlen Stokes at 1.30 p. m., Wednesday, May 14, at the Burlington County Hospital, Mount Holly; 26 members present. The minutes of the previous meeting were read and approved.

Several members spoke enthusiastically of the postgraduate courses, both in medicine and surgery, given in Trenton. The benefits derived from each lecture were well worth the attendance. Expressions for a larger attendance next year were given.

On legislation, Dr. Newcomb reported that the bills opposed by the State Society were all defeated.

The society believed that registered physicians should be in charge of medical institutions in the state, which was referred to the state welfare committee. Dr. Remer reported that the welfare committee considered it a poor time to act on this

subject now, but a committee was appointed to consider the matter.

Dr. Darlington reported that the county was not now paying the usual medical fee for commitment of indigent applicants to the county asylum. A committee composed of Drs. Remer, Tracy and Ulmer was appointed to discuss the subject at an open meeting with the board of freeholders.

Proposed amendments to the penal laws concerning birth control, from the national committee on federal legislation for birth control, was read before the society for their endorsement. Copies of these amendments are sent to all medical societies throughout the United States. The society voted its indorsement if the following, in first paragraph, is dropped, "or reprinted by any individual or organization after such publication".

Dr. F. D. Fahrenbruck, chairman of section of gynecology and obstetrics, announced the following scientific program. "Conservatism in Obstetrics" by J. Calvin Hartman, M.D., of Philadelphia, and "Health Problems of School Children" by J. Emlen Stokes, M.D., of Moorestown.

Dr. Hartman, from statistics of several medical centers, presented very definite conclusions in his subject. His paper was forwarded to the Journal for publication.

Dr. Stokes showed with charts and statistics that health and scholastics go hand in hand, also that children with physical defects predominate in the group of absentees from school. Under the heading of causes of the common cold, he considered diet and daily bowel movement important. The statement, "no stool, no school" is expressive. Exposure and improper clothing is an important factor. Fatigue, especially chronic fatigue, needs careful regulation. The common symptoms are, no appetite and irritability; with proper rest the appetite will return. Dr. Stokes wishes to continue with his experiments by comparing in groups of children, the benefits of proper diet, proper and improper clothing, the use of stock cold vaccine.

Following the meeting an excellent dinner was served by the hospital authorities and this was enjoyed by all.

CAMDEN COUNTY

Robert S. Gamon, M.D., Reporter

The regular meeting of the Camden County Medical Society was held Tuesday, May 13, 1930, at 9 p. m., Dr. J. E. L. Van Sciver presiding. There were 40 members present.

After the minutes of the previous meeting had been read and approved the Scientific Program was opened by a very excellent paper on "Recent Advances in Diagnosis and Therapy" by Dr. Hyman I. Goldstein. Discussion of the paper was made by Drs. Deibert, Rogers, R. Hollingshead, Del Duca, Hummel, Davis and Meyer. The essay dealt with the newer methods used in diagnosis and therapy as observed by the writer in great European clinics in Vienna, Budapest, Prague, Leipzig and Paris. It was most instructive and well presented.

The Committee on Revision of the Constitution and By-Laws of Camden County Medical Society read the revised Constitution and By-Laws for the second time. Among the important changes were the change of meeting day from the second to the first Tuesday of the month; investing the

Business Committee with authority to transact the major portion of the society's business and finally the change in the order of business.

The next meeting will be in conjunction with the combined medical societies of Camden County in their annual June "Outing". This meeting will be held at one of the neighboring country clubs and will be entirely social.

ESSEX COUNTY

Academy of Medicine of Northern New Jersey Section of Eye, Ear, Nose and Throat

E. LeRoy Wood, M.D., Secretary

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey held its last meeting before the Summer recess, Monday evening, May 12. The retiring Chairman, Dr. Frederick J. Wort, presided and just before adjournment, installed the Chairman for next year, Dr. J. Wallace Hurff.

Dr. Elbert S. Sherman reported several very instructive cases of "Intra-ocular Foreign Bodies". The first report was of a piece of steel that had penetrated the eyeball so that it had to be removed by the posterior route; vision after recovery being 20/40.

Another patient had a steel fragment in the anterior segment. There was a wound of the lower cornea with a small hole in the iris. The loupe did not disclose clearly but the slit-lamp showed a foreign body almost through the iris. A hand magnet pulled slightly, confirming the suspicion. In the hospital an electromagnet caused the steel fragment to cut its way through the iris into the anterior chamber and then through the cornea. The patient was back to work within a week with 20/15 vision.

Two cases of foreign body still in the eye were reported. A piece of steel from a casting penetrated the eye. The vision at first examination was 20/200. Only a wound of the cornea could be seen, but not the fundus. Later, a foreign body could be seen in the retina. Radiographs located it 20 mm. back and 8 mm. above the horizontal plane. Magnets produced no response, the foreign body being undoubtedly in the sclera.

The foreign body in the fourth case was a piece of nonmagnetic steel penetrating 8 mm. Four weeks later the eye was quiet except the lens had become opaque. Magnets were tried without any influence.

The question of procedure in the last case was raised. An opinion was expressed that when the eyeball seems to tolerate the foreign body, it is inadvisable to subject the patient to operative trauma. If the object is steel the question of siderosis must be considered. If not through the ciliary body there is little danger in waiting.

In the discussion Dr. Emerson told of placing a punctum dilator into the vitreous and by connecting it with a hand magnet removing some very small particles of steel from the posterior portion of the eyeball. He had used this method in 5 or 6 cases.

Dr. A. B. Reese, of New York, showed by means of an opaque projector many beautifully colored drawings—originals that have never before been displayed—of external diseases of the eye. Dr. Reese fully described the conditions illustrated.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The Gloucester County, Mercer County and Somerset County Medical Societies of New Jersey were the guests at Skillman Epileptic Village on May 23, when Dr. Frank C. Hammond, Dean of Temple University, gave an intensely interesting dissertation on "Medical Ethics".

HUDSON COUNTY

Edward G. Waters, M.D., Reporter

The regular meeting of the Hudson County Medical Society was held at the Carteret Club, at 9.30 p. m. May 6, Dr. A. E. Jaffin presiding.

Additional nominations were made from the floor for various officers to be voted upon at the annual meeting in October.

Two papers were read, one by Dr. Joseph Lawrence, Executive Officer of the Medical Society of the State of New York, and the other by our own Dr. Henry O. Reik, of the New Jersey State Society.

Dr. Lawrence's paper was entitled "Misconceptions in Modern Medical Economics". Early in his paper, Dr. Lawrence dealt with the reputed dearth of country doctors, and means suggested by social welfare societies for augmenting their numbers. An analysis of conditions showed that while almost half of the counties of the state showed a decrease in population in 10 years, only a small fraction showed a decrease in the number of physicians; some of the counties showing an increase in number of physicians in the face of a lowering population. In general, due to increased transportation facilities and good roads, the citizen in the country is better cared for now than he has ever been before.

Promotion of the free clinic, next came in for study. It is justified first as an educational center for the community and the physician; and second, for the diagnosis and treatment of infected persons who are a menace to the public by virtue of their irresponsibility and the nature of their disease, and who are unable financially to provide for treatment themselves. Tuberculosis and venereal diseases are examples. Diphtheria immunizations are not in the same class, and should be promoted more specifically for their educational value. The greatest misconception in evaluating a free clinic is to presume that the ills of human beings can be standardized and treated the same as automobile defects. Work cannot be done for nothing, and it is economically unsound to offer the public anything for less than it costs. In the end the consumer pays the bill.

Dr. Lawrence believed we erred in being too conservative, and not talking freely enough with certain of our patients. We leave the education of the public to irresponsible persons, whose blast of pseudo-science often occupies a front page. Since it is startling news it is prominently placed, while the later exposition of refuting facts is buried on a back sheet. Whether medical men should advertise or not is another widely discussed matter. As it is, we are at a disadvantage. However, if advertisements were limited to cards the public is no better off than now; if advertisements are unlimited the greatest advertisers are apt to be those in most need of business, since the busy man will have all he can handle; unless the latter

did so for his protection and turned over excess business to a qualified assistant.

Health Insurance and State Medicine are essentially synonymous terms. There are undoubtedly certain advantages, but to be effective, health insurance must extend over a whole lifetime and in only a few ways can it be generalized, for diagnosis and treatment must always be applied to individuals as such. A lesson in this matter can be drawn from British experience, where a comparison of 1927 with 1921 shows claims for sickness benefits rising to staggering totals, with a habit for unnecessary claims distinctly gaining. It takes more than legislation to keep a state healthy; it requires intelligent coöperation on the part of all in observing the fundamental laws of hygiene. And when some of our intellectual associates break laws of health and brag about it until incapacitated, what can one expect of the masses?

Dr. Lawrence concluded his paper by voicing his belief that in the future medicine would be most economically practiced by groups, the nature of which is yet to be agreed upon.

Dr. Reik's paper, which followed, was on "Increasing Efficiency, Reducing Cost and Improving Our Professional Status".

That the profession is alive to the growing importance of economic questions confronting it is evidenced by the increasing number of papers, discussions, and talks concerning economics of practice and the threatened advent of state medicine. While the bulk of published complaint and criticism is largely silly, there are a number of these which deserve careful consideration since they are promulgated by honest critics and social workers. While little constructive has been offered, we must conclude that the very mass of discussion must indicate some underlying cause worthy of study. Illness has undoubtedly become an expensive proposition to the average citizen, but Dr. Reik voiced the opinion that it was due not so much to the surgeon and physician, as to the senselessly extravagant demands of patients, which are natural accompaniments of the present scale of American living.

The main theme selected by Dr. Reik concerned the Economics of Group Practice. The fundamental desideratum is to bring the highest class of medical service to all classes of people, to all sick people all of the time, and to this end the medical profession should assume control of all questions relating to the medical care of the sick. President Harris' idea of a medical center in each county owned and controlled by the society was mentioned; this simulates a pay clinic but in stead of a small group combining for personal gain, the organized profession would be united for the welfare of the community. Dr. Reik spoke at length upon unnecessary hospitalization of cases better cared for at home, and the need for proper coöperation of staff members for the hospital care of people in only moderate circumstances. While the profession has split into specialties, the patient is still a union of specialties. And he often needs a union of medical specialists for his repair, which may not be available for his economic ability. The high degree of coöperation attained in the U. S. Army during the war was an excellent example of how beneficial are the properly integrated specialties. The hospitals where coöperation reached its highest levels showed in practical form its value by the markedly lower mortality rates and fewer days of hospitalization. Unfortunately, the lessons of coöperation have not been carried over wholesale into civil life,

but Dr. Reik still is convinced that the desired end will and must be attained. The public is coming to realize that the human body needs periodic overhauling, and that the proper diagnosis and treatment of disease is a complicated matter requiring coöperation of more than one member of the profession, if best results are to be attained. This is evidenced by the success of many of the outstanding clinics.

Dr. Reik believes that the plan of Dr. Harris is workable if the physicians of the counties *desire* it to succeed. Efficiency of service would go hand in hand with reduced costs. County societies should consider such plans: (1) because our ideals require us to render society the best service possible, and attempt to abolish existing and prevent new diseases; (2) the plan offered would reduce the cost to the ultimate consumer, the patient, with at the same time increased business because of increased values given; (3) by assuming new responsibility in the rôle of guardian of the public health, the profession will advance far in public esteem.

In conclusion, let us improve our professional efficiency, and render better service to the sick everywhere and at all times, at the lowest possible cost, because it is our obligation, because the public demands it, but mostly, because it is our privilege with our ideals.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Secretary

Regular meeting of the Clinical Conference of the Bayonne Hospital was held Monday evening, May 5, at 9 p. m. Meeting called to order by Dr. Donohoe, Chairman.

Dr. Morgenstein reported from the service of Dr. Deary a case of "Chronic Diffuse Glomerular Nephritis with Uremia". E. D., male, white, aged 51, had some kidney disease with hypertension, nocturia and polyuria 13 years ago. Three years ago hemiplegic stroke from which he entirely recovered. Four months ago lost vision of right eye and at time of admission showed loss in left eye. Progressive weakness of lower limbs and unable to stand. Some cerebral involvement, becoming irrational and noisy.

Acutely ill, right pupil did not react to accommodation or light; left normal. Eye-ground examination showed optic atrophy. Left eye papillitis with retinal hemorrhage, round disc, veins and arteries very small. Kidney ceased functioning and he went into uremic coma, with signs of consolidation of the left lower lobe. Treatment purely systematic; potassium iodide, luminal, nitroglycerin and hot packs. Above diagnosis made at autopsy.

Case 2. "Cerebral syphilis". A. A., white male, admitted to hospital with generalized weakness on the right side, not paralytic. History of chancre 30 years ago with no treatment. Speech halting and eyelids drooping, bilateral deafness, slight facial palsy on right side and of right upper extremities, dulling sensations on same side. Wassermann, blood and spinal fluid 4 plus. Receiving trypanemid and is showing marked improvement.

Dr. Fifer reported cases from the service of Dr. Sexsmith.

Case 1. Mrs. S., aged 37, admitted to hospital April 9, complaining of pains in lower abdomen for 2 months, appearing at intervals with varying

intensity. No nausea nor vomiting at any time. No discoloration of the skin was noticed at any time during her illness. Has belched considerable gas at intervals for the past few months. Profuse vaginal discharge, together with some burning, on micturition. Temperature normal. Disclosed moderate tenderness in epigastrium and right lower quadrant. No maximum point of tenderness. Vaginal examination disclosed a cervix thick, swollen and slightly inflamed. Vaginal smear showed Gram-negative diplococci. Urethral smear showed very many Gram-negative bacilli. Patient was referred to Genito-Urinary Service. X-ray report showed a small shadow in region of orifice of left ureter.

Patient continued to complain of pain in epigastrium and an x-ray picture of the gall-bladder was ordered. Report stated that the gall-bladder did not accept dye, and hence was suggestive of some existing pathology. Patient was now referred to surgical service for operation on April 28. Incision was made into the fundus of the gall-bladder, the bile drained, with suction, a tube inserted and the abdomen closed. Exploration of the abdominal cavity showed no other existing pathology, and on her seventh postoperative day is resting comfortably, with no complaints.

Case 2. Mrs. S., aged 48, admitted March 27, on Genito-Urinary Service with history of pain in right upper quadrant, radiating to back together with general hyperesthesia of entire body. Very highly neurotic with a strong tendency toward exaggerating any symptom; pressure on her pedal extremities eliciting as much pain as pressure on her abdomen. Temperature normal. Cystoscopic examination showed no existing pathology and she was referred to Surgical Service. Physical examination at this time disclosed moderate tenderness over gall-bladder region, but it was difficult to evaluate these findings because of her neurotic tendencies. Gall-bladder was found to be considerably distended, no adhesions, and routine cholecystostomy was performed. No drainage was apparent until 5 days after operation; 12 days afterward tube was removed and patient is apparently doing well.

Dr. Frieman. "Case History with Autopsy Findings". J. L., white male of 40, was admitted on April 17 with a history of acute onset of generalized abdominal pains, termed "indigestion" by patient; mild in character at first but later increased in intensity with the pains following the noon meal and later he began to vomit foul material. On physical examination after admission he was found to be in extreme shock with a marked pallor, cold clammy skin, embarrassed respiration, and rapid, thready pulse.

Abdomen moderately distended and rigid throughout, with tenderness on pressure over hypogastrium and left inguinal regions. The epigastrium was slightly tender but there was no board-like rigidity. Liver dullness in flanks with hyperresonance over the middle of the abdomen. Was treated for shock but he became progressively worse and finally expired in cardiac failure after a 9-hour stay in the hospital. Permission was obtained for an autopsy which was performed that same afternoon with the following pertinent findings.

The peritoneal cavity was filled with blood and clots. A portion of the sigmoid colon was gangrenous, paralyzed, markedly dilated and ruptured at one point upon which a large blood clot rested. The mesentery was also gangrenous and covered by blood clot but this area was peculiarly well cir-

cumscribed, adjacent to which were a number of linear scars running in different directions in the mesentery. On further exploration a very interesting gall-bladder was found; small, thickened, fibrotic and firmly adherent to the under surface of the liver as well as to the pyloric end of the stomach and first part of duodenum. On opening the gall-bladder, a large calcified stone, the size of a pigeon's egg, was found occupying the entire organ. The omentum was firmly adherent to the parietal peritoneum in front and about the gall-bladder region.

There had apparently been chronic repeated torsions of an abnormally long sigmoid mesentery with repeated vascular insults, manifested by so-called indigestion, which resulted in a weakening of that part of the colon supplied by the involved mesentery as well as scarring of the twisted portion. Then an acute torsion occurred, with clinical manifestations as given above, which in reality was similar to a condition of mesenteric thrombosis but instead of a primary closure of the mesenteric vessels there was closure by torsion of the mesentery and resulting ischemic condition of the bowel.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Component Medical Society met in the Carteret Club on May 14, President Vanneman presiding. The minutes of the preceding meeting were read and approved.

Dr. A. Benson Cannon, Associate Professor of Dermatology College of Physicians and Surgeons, New York City, was introduced by the President and spoke on the subject of "Diagnosis and Treatment of Syphilis". With numerous slides, Dr. Cannon illustrated very clearly the differential characteristic lesions appearing in primary, secondary and tertiary syphilis. Several of the rare complications accompanying this disease were shown, with particular emphasis expressed on carcinoma and some benign growths, the great difficulty in making a diagnosis being most clearly defined and explained in detail. The speaker outlined the course of treatment to be followed in different stages of the disease, in the use of mercury, bismuth and the iodides.

Drs. R. J. Belford, of Princeton, M. H. Friedman and J. A. Holland, of Trenton, were elected to active membership, and Drs. Joseph Pantaleone and J. L. Wikoff, of Trenton, to associate membership. Applications of Drs. J. H. McCullough, Jr., of Trenton, W. G. Rainey, of Princeton, and Albert Philip, of New York, were read and referred to the membership committee.

Speaking of the death of Dr. Joseph L. Gariss, who died on April 28, and to the sudden passing away of Dr. Clinton H. Read, both highly respected members of the profession, several members expressed the sense of loss to the society, to the medical profession and to the community; following which the President appointed Drs. Adams, Davison and Cotton as a committee to draw suitable resolutions concerning Dr. Gariss; and Drs. Shaw, North and Stratton to act in a similar capacity on the death of Dr. Reed.

The June meeting will be held in Princeton, on the nineteenth at 4 p. m.

Dr. Costill moved that the subject of State, Municipal and County Medical employees be referred to the Board of Censors, seconded by Dr. Atkinson. The motion was lost.

MIDDLESEX COUNTY

William C. Wilentz, M.D., Reporter

The regular monthly meeting of the Middlesex County Medical Society was held Wednesday, May 21, at 4 p. m., at the Middlesex General Hospital, New Brunswick.

Dr. David Kraker, of Newark, gave a most interesting talk on "Common Anorectal Diseases". His talk was ably delivered and a most interesting discussion took place.

The following men were elected alternate delegates to the State Convention: Drs. Voorhees, Howley, Weber, King and McGovern.

The death of Dr. Woods was reported to the society.

Dr. Weber made a motion, which was passed, that a committee be appointed by the President to visit sick members and report same to the society, and also to take some action when a member of the society dies. This committee is to consist of the President, Secretary and one more physician to be appointed by the President.

There being no further business, the meeting was adjourned.

Medical Section Rutgers Club

April Meeting

J. H. Rowland, M.D., Reporter

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Friday evening, April 25, at the Hotel Klein.

The meeting was called to order by the Chairman, Dr. Klein. There being no business to transact, the speaker of the evening was immediately introduced. Dr. Thomas Cherry, of the Post-Graduate Hospital, New York, spoke on "Precancerous and Cancerous States of the Cervix".

Dr. Cherry, in a brief outline of the subject, gave a very interesting talk which was only surpassed by the wonderful demonstration by lantern slides and animated moving pictures, which showed most beautifully the clinical aspects of the precancerous and cancerous states of the uterus, the progression of the disease, and the result of treatment. Dr. Cherry stated that the best treatment for cancer is not to have it. The best way not to have it is to remove all precancerous causes, such as inflammatory conditions of the cervix in women past 35 years of age. The best method of treatment is surgical removal by either the Sturmdorf or modified Schroeder technic, or complete removal of diseased areas by destructive applications of heat through electric cautery or surgical diathermy. Dr. Cherry recommended, especially among general practitioners, the early diagnosis of precancerous influences, and the removal thereof by education of patients to the possibilities of the precancerous stage of cancer.

The paper was discussed by Drs. Forney, Walker, Nafey and Feher.

After the program the meeting adjourned to the main dining-room, where a full-course dinner was served. Drs. Klein, Johnson, Leonard and Merrill were responsible for the entertainment. A surprise birthday cake with 42 candles was presented to Dr. Nafey.

May Meeting

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Friday evening, May 16, 1930, at the Elks' Club, New Brunswick, with Dr. William Klein presiding.

There being no business to transact, the speaker of the evening was immediately introduced. Dr. Bruckner, of the Hospital for Joint Diseases, New York City, gave a very instructive talk on "Osteomyelitis". He placed special emphasis on the treatment of chronic bone abscess, and the advantage of the more conservative operation of small drainage areas, the satisfactory results of this treatment and the rapid recovery as compared to the more radical removal of extensive areas of bone and the long period of recovery. The paper was discussed by Drs. Runyon, Hoffman, McGovern and Nieman.

Following this, pleasing refreshments were served by the hosts of the evening, Drs. Saulsberry, Schureman, Scott, Sherman and Sullivan.

MONMOUTH COUNTY

Daniel Featherston, M.D., Secretary

The April meeting of the Monmouth County Medical Society was held at the Garfield-Grant Hotel, with Dr. James A. Fisher presiding. The minutes of the previous meeting were read and accepted. Communications were read and ordered filed.

On motion of Dr. Earl Wagner, which was seconded by Dr. O. R. Holters, it was voted to recommend to the State Board of Medical Examiners the reinstatement of the license of Dr. Walter B. Allen, who formerly practiced in Keyport, to again practice in the state of New Jersey.

Dr. Stanley Nichols read a communication from the Monmouth County League for Social Service for a plan of prenatal visits and instructions by the social service nurses. A committee was appointed to investigate the matter and report to the society at the next meeting. The committee was composed of Drs. Robert MacKenzie, Chairman; Joseph Ackerman, Robert E. Wilson, D. V. Manahan, Frank Goff, Byron Blaisdell, Walter Gosling, Harold Kazmann, Kenneth Brown and Daniel Featherston.

The society had the pleasure of a short address by Dr. H. O. Reik, Executive Secretary of the Medical Society of New Jersey.

The speaker of the evening was Dr. Henry Bockus, of Philadelphia, who gave a very interesting and instructive talk on "Duodenal Stasis". A buffet lunch was served.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

The New Jersey State Hospital at Greystone Park, on Wednesday, May 14, enjoyed the distinction of being one of a limited number of mental disease hospitals in the United States selected to be visited by foreign physicians of prominence in their specialties in Germany and the Netherlands, commissioned by their respective Governments to attend and participate in the First International Congress of Mental Hygiene, held in Washington, D. C., the week of May 5-10; also for the purpose of gaining first-hand knowledge by visiting and inspecting a few of the more outstanding mental hospitals in America.

The visit to Greystone Park was prompted by what they had heard of its prominence in the field of psychiatric endeavor in America. Their major interests were in the Reception Building

with its special facilities, and the work being done along clinical lines; also the Mental Hygiene Clinics being operated from Greystone Park in the various counties of northern New Jersey, and the Social Service set-up at this institution. They manifested extreme interest in the Occupational Therapy Department and freely expressed themselves as having seen in their travels nothing to equal this department as organized and conducted at Greystone Park.

The distinguished foreign physicians were escorted to the hospital by Dr. Willem van de Wall, of the Bureau of Mental Health, Harrisburg, Pennsylvania and in the group were the following:

Gustav Koib, Director of The Hospital and Sanitarium, at Erlangen, Bavaria; member of the Board of Directors of the German Psychiatric Association and the German Association for Mental Hygiene.

Hermann Simon, M.D., Director of the Provincial Hospital for Mental Diseases, at Gütersloh, member of the Board of Directors of the German National Committee for Mental Hygiene, the German Association for Psychiatry, the Society for Psychotherapy, and Corresponding Member of the Vienna Association for Psychiatry and Neurology.

Hans Roemer, M.D., Medical Counsellor to the Baden Ministry of the Interior, Secretary of the German Association for Mental Hygiene, Director of the Institute for Mental Diseases, Illenau; Chairman of the Baden Association for Helping Persons with Mental Diseases.

J. H. Jemeljer, M.D., Medical Director of the Maasoord Mental Hospital, Rotterdam, member of the Committee of the Dutch Society for Social Care of Mental Patients, member of the Dutch Association for Psychiatry and Neurology; and corresponding member of the British Royal Medico-psychologic Association.

Carl Hermkes, M.D., of Eirkelborn, Westphalia, and Gustav Gniser, M.D., of Münster, Westphalia.

PASSAIC COUNTY

Frank W. Ash, M.D., Secretary

The May meeting of the Passaic County Medical Society was held at the Health Center, Paterson, May 14, 1930, at 9 p. m., with Dr. J. P. Morrill presiding; 40 members were present. The minutes of the April meeting were approved as read.

The applications of Drs. Leon Smith, Harold J. Durant, and Louis Kowalski were read to the society and ordered sent to the censors for investigation.

The censors' report was read to the society, after which the following names were voted upon. All candidates were elected with the exception of Dr. Samuel Lustberg, of Passaic, whose application was defeated. Those elected to membership were as follows: Charles F. Scudder, Elks' Club, Passaic; Dominic Marini, 40 Henry Street, Passaic; Isidor Cohn, 231 Lexington, Passaic; L. Jerome Sobel, 211 Main Avenue, Passaic; Edward Ehrenfeld, 57 Main Avenue, Passaic; and Michael De Mattia, 71 Cedar Street, Paterson.

Dr. E. J. Marsh spoke of the debt of gratitude the society owes to the late Dr. Bennett who served the state society so faithfully and well as Chairman of the Publication Committee of the Journal.

A letter from the Barnert Hospital was read

inviting the members of the society to make use of its new reference library.

Dr. D. S. Renner, Superintendent of the State Hospital for Epileptics at Skillman, read a paper explaining what the state is doing for its citizens who have this unfortunate disease. This paper provoked a good deal of interesting discussion which enlightened the members of the society as to the means of getting patients into the institution, the manner in which they are treated, and a description of the equipment of the state institution. A vote of thanks was given Dr. Renner for the paper.

A letter was read from the National Committee for Birth Control and referred to the Legislative Committee for consideration.

Dr. Joseph made a motion to have the Legislative Committee consider taking steps to correct the present unfair and unjust compensation laws regarding traumatic hernia. This was carried.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

A special meeting of this society was held at the Elizabeth General Hospital on the afternoon of May 14, for the purpose of electing 12 Alternate Delegates to the State Society Convention. Those chosen for 3 years were: Drs. M. A. Shangle, C. A. Brokaw, Jacob Reiner, of Elizabeth; and G. W. Strickland, of Roselle. For 2 years: C. B. Keeney, Summit; Frederick Sell, Rahway; Emil Stein, Elizabeth; Elmer P. Weigel, Plainfield. For 1 year: Harry V. Hubbard, Plainfield; George Orton, Rahway; Harold Goldfield and Jack Blumberg, Elizabeth.

Summit Medical Society

W. J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, Tuesday, April 29, with President Meigh in the Chair, and Dr. Reiter entertaining. Present: 18 members and 7 guests. Minutes read and approved.

The President appointed a Nominating Committee, consisting of Drs. Prout, Krauss and Bensley, to propose names of officers to be elected at the Annual Meeting in May.

Dr. Thayer A. Smith, of Short Hills, applied for membership in the society.

Dr. E. V. Sweet, of Maplewood, addressed the meeting on the subject of "Longevity". He stressed the importance of quality of the germ-plasm in this respect, and said that its vitality could be impaired by syphilis, alcohol, and malnutrition. The cycle of life consists of 3 stages: growth, maturity and degeneration. These overlap, degeneration beginning even before birth with atrophy of the chorionic villi and the urachus, and after birth by atrophy of the thymus. Many factors enter into the subject, but a normal physiologic degeneration begins after the stage of reproduction has reached its climacteric, this being the sole biologic reason for existence. While the average expectancy of life has been greatly lengthened since the earliest known records, yet the biologic span of life remains fairly constant.

A prolonged and interested discussion followed, reaching out into the realms of poetry, religion,

philosophy, rules of conduct for a long life, and the treatment of the aged. The hour was late when the meeting adjourned for refreshments.

Elizabeth General Hospital

Reported by Harold Goldfield, M.D.

The regular monthly meeting of the Clinical Society of the Elizabeth General Hospital was held Tuesday evening, May 20, 1930, at the hospital, President Michael Vinciguerra in the chair.

An interesting case of Addison's disease was presented by Dr. Louis Chaiken, of the genito-urinary service, and discussed by Drs. Lerman, Abel, and Green.

The greater part of the evening was taken up by a very instructive lecture on "The General, Medical and Surgical Implications of Tabes Dorsalis, With a Discussion of the Pathology, Symptomatology, and Treatment", by Dr. Michael Osnato, Professor of Neurology at Columbia University, and Director of the Department of Neuropsychiatry at the Post-Graduate Medical School of New York. The lecture was illustrated by lantern slides. The discussion which followed was opened by Dr. Prout, and also participated in by Drs. Casilli, Lerman, Livengood, and Oleynick.

The attendance at the meeting was unusually large, and the program was followed by the usual collation and social hour.

Obituaries

HOFER, Clarence A., of Metuchen, died of uremia induced by influenza, after an illness of 2 months, at Muhlenberg Hospital, Plainfield, May 5, 1930. Born at Harper's Ferry, West Virginia, in 1866, he graduated in Medicine at Jefferson Medical College in 1899, receiving along with his degree the Gold Prize in Anatomy. He became an instructor in pharmacology and practiced in West Philadelphia for a time before establishing his home at Metuchen. His long period of life and practice in his state, and his earnest devotion to all who sought his professional aid, made him a host of friends and endeared him to all in the community.

LIEBMANN, Walter Clifford, of 26 Netherwood Place, Newark, died May 16, 1930, at the age of 39, after an illness of several years' duration.

He was born in Newark. Graduating from Barringer High School, he entered Hahnemann College in Philadelphia and went from there to the Medico-Chirurgical College, now part of the University of Pennsylvania. He served his internship at Newark City Hospital and was graduated in 1915.

When the United States entered the war Dr. Liebmann became a lieutenant in the Medical Corps and served abroad until 1919.

After the war he became connected with the Isolation Hospital, but was forced by poor health to leave. Subsequently he served as physician for the Transmarine Corporation at Port of Newark.

READ, Clinton H., of 567 S. Warren Street, Trenton, died May 10, 1930. Stricken by a heart attack while on his way to visit a patient at Titusville, he died before aid could be summoned. He was 68 years old.

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THE COMPENSATION ACT IN RELATION TO DOCTORS AND THE PRACTICE OF MEDICINE*

ANDREW F. MCBRIDE, M.D.,
Paterson, N. J.

It is not only a pleasure but a privilege to address the members of the Essex County Medical Society on such an important topic. Whether or not I will be able to present the assigned subject in such way as to make it interesting and worthwhile is a question. Much has been said and written on "medical economics" in general. We hear and have read much criticism of the profession regarding the increased cost of medical and hospital care. Undoubtedly there is merit in some of this criticism. That it has been exaggerated and magnified frequently, admits of no contradiction. Much of the criticism is due to patients themselves, their families and friends. This is evident to all of those familiar with conditions. So that nothing may be left undone, in the minds of patients, family or friends, many things are ordered that possibly could be well done without. For example, one or other of the above named, or all combined, may insist on having one of the more expensive rooms; likewise, every laboratory facility, clinical, pathologic and x-ray. They also insist on night and day nurses who very often could be done without, and on consultations not necessary. All of which

goes to increase the cost of medical and hospital care of patients, many of whom are unable to pay such large expenses but only seem to realize that after the services have been rendered.

Personally, I endeavor to avoid such criticism by pointing out to the patient, his family and friends, the utter lack of necessity for any or all of the unnecessary things that he frequently thinks he needs. I feel that every other physician should do likewise. No doubt most of the older men do, as experience has taught them the necessity for doing this. The 5½ years spent by me in the service of the State of New Jersey as Labor and Compensation Commissioner afforded abundant opportunity to draw conclusions as to its economic effect on the physicians.

Let me say at the outset that the Compensation Act of New Jersey, and all of the other states of the nation that have such acts, and all except a very few have, as have the Provinces of Canada, is one of the most humane pieces of legislation on the statute books, in that it provides almost immediate means for the maintenance and care of the injured worker and his family at a time when such aid is so necessary to many who are unable to work as a consequence of their injuries. The Act further provides for the medical and hospital care until such person is as fully recovered as it is possible to make him. As we all know, most of the serious injuries are taken care of at a hospital for a part of the time at least. Now the Compensation Act places the responsibility for providing necessary medical and hospital care on

* (Read before the Essex County Medical Society, Feb. 13, 1930.)

the employer. The Act further provides that he must carry compensation insurance, or he may be a self-insurer if he can furnish sufficient and satisfactory evidence to the Banking and Insurance Department of the State that it is safe to grant him such privilege. By far the greater number of employers in New Jersey are covered through "insurance carriers". This has often resulted in causing trouble, due to the fact that some carriers insist on providing physicians of their own selection to take care of their assured's injured employees, without regard to the wish of the injured person and despite the fact that the injured person has had a family physician for years, in whom he has the utmost confidence and who, in many instances, is much more competent to take care of the injured than is the physician selected by the insurance carrier or self-insuring employer. That this practice has caused much dissatisfaction to many members of the profession in New Jersey is evident to any of the physicians of the state who have had experience in taking care of injured workers. Fortunately, this practice is not carried out by all of the insurance carriers or self-insurers, and there are many such who accept and pay for the services of physicians secured by the injured person, or if they are hospital cases these carriers and self-insurers permit them to remain under the care of the physician in attendance at the hospital. This, to my mind, is as it should be. The carrier and his assured, likewise the self-insurer, are fully protected by the New Jersey Compensation Act, in that it gives them the right to have any physician or physicians of their selection see any injured person in consultation, to note the treatment and progress in such cases, and to offer any suggestions that they see fit to make regarding the treatment of such injured person. This section of the Act makes provision for as many and as frequent consultations as the employer or his insurance carrier desires. It seems to me that this clause in the Act thoroughly safe-guards the rights and interests of the employer and his carrier. Furthermore, I feel certain that if some carriers and self-insurers persist in their present attitude and practice of riding rough-shod over

what appears to me to be the inherent right of every person to select his own doctor in time of need, that it won't be long before the workers of the state, together with the medical profession, will be seeking redress through an amendment to the Compensation Act, which will accord to the injured person the definite legal right to select his own doctor.

This question is not new. It has frequently been discussed by members of the Essex County Medical Society, and all other county medical societies of the state, and that such an amendment was not pressed long ago was out of respect for those employers and their carriers who treated all competent and honest doctors fairly, and who did not take cases away from the physician of the injured's own selection; this also applies to many of the self-insurers. The medical profession has been patient in this respect and has suffered many indignities rather than see some injured persons fall into the hands of incompetent practitioners.

It was thought formerly by many prominent physicians of the state that if the Act gave the injured person the right to select his own doctor, that through ignorance or stress he might fall into the hands of some incompetent person, because the laws of New Jersey recognize all of those to whom it has given the right to engage in the healing art, and this includes many who are not qualified to do industrial or any other kind of surgery.

That much harm has been done the injured worker and much expense inflicted on the state as a whole, by the practices of some carriers and self-insurers, has been evident to myself and no doubt to every one familiar with the practice in vogue in every compensation district in the state; by their medical and other representatives, in minimizing disability, in forcing injured, or trying to force injured workers back to work before they were able to go, and if the injured worker refused, by stopping his compensation—thereby forcing them to do the only thing left, that is, to file a formal petition which would afford them an opportunity to have their disability determined at a trial. This, of course, is a very proper part and provision of the Act,

both for the injured worker and his employer. These trials cost the state money that very often would not have been necessary, if the injured person's disability were not estimated by a physician whose opinion was more or less biased and, perhaps, whose ability to estimate correctly was not of high order.

If I leave no other message with the Essex County Medical Society tonight, I wish you would ponder carefully and seriously this important one, which is: "Should the injured worker have the right to select his own doctor in case he is injured during the course of his employment?"

I feel certain that unless some carriers and self-insurers cease forthwith their practice of minimizing the disabilities of their assured's and their own injured workers, and their attempt to force them back to work before they are able, and who fail to see to it that they are given good and competent medical care, that it will be the almost unanimous verdict of your society that the Compensation Act should be amended, so that it will further safe-guard the rights of the injured worker and his physician.

Many doctors of the Medical Society of New Jersey do not treat surgical cases of any kind, including traumatic surgery, no matter how simple the case may be. I feel and I know that you all agree with me when I say that no physician should attempt to do industrial or any other surgery unless he is thoroughly able to do so, both by training and experience, and should refrain from doing so except in extreme emergency, after which he should give the case to some competent surgeon.

In the Compensation Act of New Jersey, certain conditions are laid down which physicians attending compensation cases must accept. Failure on the part of many physicians to comply with the provisions of the Act has caused much embarrassment to the injured worker and to the carrier as well. The strange part of this is that some doctors never think of acknowledging their faults at all, but criticize everyone else. Now, the Act provides that the attending doctor shall on request furnish the employer or his carrier with an account of the injured's disability, etc. Doctors

frequently pay no attention to this request despite the fact that repeated requests to do so are sent them when first called in a case and on completing services to such patients. This the doctor often fails to do, but he sends in his bill, which he often fails to itemize as he is requested by the carriers or self-insurers. I have personally heard doctors say that they will not do this for anyone. Well, perhaps not, but while they may not do it for their own private cases and where they may refuse to attend to patients that want them to in the future, they must, in compensation cases, if I understand the law. Of course, they have the right to refuse to again attend a compensation case, because of this provision of the Act. That is, if they want to, just as they have the right with any private patient that insists on this service. However, my advice is to comply with the provisions of the Act as these relate to our profession.

Now, as I said before in my address to you, many of the carriers and self-insurers treat the medical profession honestly and fairly and coöperate in every way, and some of these carriers and self-insurers have had occasion to complain, not only of the failure on the part of the doctors to send in reports on their cases, both when they are first called to attend and after they complete their attendance, and also their failure to itemize their bills. Some doctors have failed to comply with the intention of the Act which infers that they shall not charge more for their services than they would charge the person if he or she were responsible and had to pay the bill. They further charge that many physicians have sent in bills far in excess of what they felt would be proper. Having been a practicing physician, myself, of many years standing, before taking up the duties of Labor and Compensation Commissioner, I was desirous of seeing that all proper medical bills were paid, and that right promptly. To bring this about I set up arbitrarily in many parts of the state, Medical Boards consisting of 3 members; 1 member was selected by the Medical Society, 1 by the carriers and one by the state, so that all disputed bills could be referred to these Boards for the purpose of being reviewed and passed on. In this

way, almost without exception, results were obtained that were generally satisfactory and many thousands of dollars were paid to physicians that would never have been if such a tribunal had not been in existence. All disputed questions concerning both doctors and hospitals in their relation to the Compensation Act were taken up and composed by these Boards. They did a splendid service, one that was thoroughly worth-while. Their labors resulted in much good. They did a lot to clarify misunderstandings. They brought about a better relationship between the profession, the hospital, the carriers and self-insurers. One great disadvantage was the fact that they had no *legal* authority for existing and that their findings were not binding and could not be enforced if either side cared to disregard the opinion or suggestions. In addition to the disadvantage just mentioned, there was another, which was that the doctor selected by the County Society had to serve without recompense or salary. His was a labor of love, all done for his fellows in the profession, and sometimes even they abused him if he could not always agree with their viewpoint.

I want at this time to offer my meager thanks and appreciation to Dr. David A. Kraker, of your society, who so splendidly and efficiently represented your county on that Board, and uncomplainingly. He did great constructive work and did much to make successful a thing that was only experimental in the beginning. His sound logic and his unselfishness in behalf of his brother physicians won for him the respect and admiration of all those who had business with the Board. There were several such Boards in the state, all serving loyally and devotedly. My thought is that they should be continued by law and that the man selected by the county society in each district be paid for his services. It would not cost the state much; they might be paid according to the time taken in the work, so much per day, and grant them powers that would be real. If this were done, I feel that everyone concerned with compensation work should be benefited.

If the powers of such Boards were suffi-

ciently broad it would surely discourage practices that now exist all over the state. It would prevent carriers, self-insurers, doctors and adjusters from appearing at informal hearings, minimizing injured workers' disabilities and endeavoring in every way to settle cases to the disadvantage of the worker and to the supposed advantage of his employer. Experience has taught me that there is no lasting gain by such practices, except perhaps a temporary one for doctors who engage in this work for a living, and to the adjuster who may for a while bask in the favor of his company because of his apparent ability to close out cases at a minimum cost to his employer. This is not a real saving to the carrier or self-insurer, for while he may get away with it in some instances, and thus defraud poor injured workers, it doesn't work in the majority of cases for the Act provides wisely in that an injured worker, if he is not satisfied that he has received justice at an informal hearing, has the right to file a formal petition, which means that the case is tried on its merits and he can submit all the evidence in his possession as to the disability sustained as the result of the accident arising out of, or in the course of, his employment. This is costly both to the carrier and self-insurer, likewise to the state and the injured worker. For example: Both sides have to bring in counsel and an array of medical experts who are sworn and testify as to their findings. If the injured worker can prove that this was the only way that he could secure that compensation to which he was entitled, and was materially more than his employer's insurance carrier or self-insurer wanted to allow, then the fee of his counsel would be assessed against the insurance carrier of his employer. Likewise he could be allowed \$150 for his medical experts, not to exceed 3 in number, who were called to testify in his behalf and who were instrumental in establishing his case. In the interim, however, he is out compensation. This stops just as soon as a formal petition is filed or from the time his employer's carrier stops paying compensation that he thought he was entitled to but which was

disputed. Many formal petitions are filed because insurance carriers refuse to agree to the findings at the time the case is heard informally. One of the main reasons for doing this is that their doctors feel that the disability is less than that found by the state's doctor, and less than the injured person feels that he or she is entitled to. Very often the carrier's action is based upon the opinion of its lay adjusters. Other reasons for filing formal petitions are that very often the injured person does not have any knowledge of the Compensation Act or is unwilling to accept that which is just, or he may be awarded more than the carrier feels that he is entitled to and to bring about a settlement the carrier files a formal petition. Again, still other questions arise which make it necessary to file formal petitions. For example, there is frequently doubt as to whether the accident occurred during the course of employment or if the disability suffered or claimed was caused by an accident. These questions of course are determined at such a formal hearing. In many cases of this kind and where there appears no reason for the injured filing a formal petition, the injured may be forced to pay his own lawyer and witnesses. Frequently they are not paid at all.

Now, as you well know, the medical profession plays a most important part in the administration of the Compensation Act. This was fully recognized by me as soon as I assumed my duties as Commissioner, and one of my first tasks was to correct abuses then in existence, and which in my opinion did much to discredit the work. I found that one of the customs then in existence was to have a Deputy Commissioner or referee decide the percentage of disability the injured person suffered, and the way he arrived at this estimate of disability was to find out what the injured man's doctor claimed, then what the carrier's doctor claimed. It was then decided that one was too high, and the other too low, and so he split the difference. Then again, where the carrier's doctor was the injured's they would decide the case according to their own judgment and would

pay little or no attention to the estimate of disability given by the state's doctor. This, to me, was most reprehensible and it was only by absolute compulsion that I was able to stop this practice which to me was not only ridiculous but so dishonest that I ordered it stopped forthwith, informing them that they were to take the word of the state's doctor in all informal hearings and to at least have the findings and estimates of the state's doctors in all cases, with this reservation, that if for any reason they questioned the estimate of disability in any given case or cases made by the state's doctor, that the case was to be referred to me personally and I would either follow this up by a personal examination or have some competent doctor examine the injured person and give his opinion in writing as to the amount of disability with which the person was suffering. Of course many persons questioned the percentage of disabilities that were found by the state's doctors, except in the case of very minor disabilities which were apparent to anyone. The injured worker, and frequently his counsel, felt that the doctor's estimate was too low. The carriers frequently felt that it was too high. Often lawyers would bring cases to the department's office and have an examination made, have the percentage of disability determined and then, without the knowledge of the doctor who made the examination, would again bring the injured person in and have him examined by another member of the state staff. Sometimes there was a disagreement in the amount of disability found. This caused a good deal of comment, especially if there was any considerable difference in the amount of disability found. Certain lawyers would have their injured clients examined outside by one or more doctors, then, without our doctors knowing this, would bring the injured person in for an examination by the state's doctor. If the state doctor's estimate happened to be high, he was immediately subpoenaed as an expert when the case came up for trial. If his estimate of disability was low, he was not subpoenaed but the estimate found by him was heralded about and he was charged with favoring the

insurance carrier or self-insurer to the detriment of the injured working man. And if the insurance carriers, which includes the self-insurer, had the man examined by the state's doctor and his estimate coincided with the estimate of their doctors, then they subpoenaed the state's doctor, and if, after trial, the case resulted in a verdict not in accordance with the views of the injured's lawyer, then the state's doctor was again charged with favoring the carrier.

After considerable annoyance to me and after suspicion had been directed at the state's doctors, I issued an order forbidding them to appear as experts at any formal hearing. This action, likewise, was much criticized, in that it was said that it robbed the injured worker of an aid that should be his and that the Act was made solely for the protection of the worker. However, I was adamant in my position and as long as I remained there the doctors were never allowed to testify as experts for either side and I don't feel that any injured worker ever suffered any ill effects from that order.

Again, a very serious situation arose, which concerns the state's doctors in compensation work, and I feel that there was justification for the criticism. While I had at the time, and still have, the greatest confidence in the world in the integrity and high character of all of the doctors in the state's employ in compensation and rehabilitation work, it did not look proper or right to have state doctors do the work for insurance carriers or self-insurers and then pass for the state upon the disabilities of the injured worker. And my thought from the very beginning, just as soon as I got my bearings, was, that no doctor should be connected with the compensation work for the state unless he devoted all of his time to the work and to the exclusion of all other work. I am still of that opinion. I feel that he should be properly compensated for it, and that if possible he should be a doctor recommended by the medical society of his district, chosen solely for his ability, integrity and high sense of justice and because he is willing to do conscientious work. If this were done, then I

feel no one could *justly* criticize the findings of such a physician. I would like to have the Essex County Medical Society and the other county medical societies of the state give this question some thought, so that if it meets with their approval such recommendations may be made as will enable the state to make proper provision to carry them out by an amendment to the Compensation Act.

At present, in the 2 largest compensation districts in the state there are 2 part-time physicians engaged in work which might well be done by 1 full-time doctor, if his entire time were devoted to this work. I feel that it is most unwise to have a doctor devote part of his time to the physical rehabilitation of injured employees and others and at the same time make examinations for insurance carriers and self-insurers, and to accept payment for treating such cases. My reason for saying this is that he comes more or less in contact with the doctor who estimates the disability of the injured workers and while the opinion of the former may not be influenced or changed by him it is bound to lead to confusion and ultimately to criticism and censure.

It was my thought when I accepted the invitation to address your society to have something to say about physicians engaged by industrial plants, also those engaged by health departments, insurance companies, Boards of Education, etc., but I feel they constitute a sufficiently large field to warrant an entire paper devoted to their discussion.

In conclusion, the principal thoughts that I would have you seriously consider are as follows:

- (1) Should the injured worker have the right to select his own doctor, subject to the present provisions in the Act, to wit: That the physician or physicians of the employer or his insurance carrier have the privilege of seeing the injured worker in consultation as they may desire, and in case of disagreement to call in some recognized surgeon of the district.

- (2) The creation of a medical board as outlined previously in this address, clothed

with sufficiently broad powers as to be of real value.

(3) Would it not benefit all those concerned to have all of the state's doctors connected with compensation and rehabilitation work made to give all of their time to this work and to the exclusion of all other medical and surgical activity.

INCIDENTS IN A DOCTOR'S LIFE

E. E. DE GROFFT, M.D.,
Woodstown, N. J.

Although I deem it an honor to be the essayist for this meeting, it was with a degree of reluctance that I consented to accept the invitation, as I am a much better listener than speaker. However, even though the effort may prove to be an humble one, I shall fulfill my promise to you; angels could do no more.

I have selected for my theme something that is out of the usual order. Is it possible to conceive of a more noble and humane calling than that of the medical profession? Think for a moment of the overworked physician, more especially in a country practice. In his visitations to the sick, ministering to their ills and ailments upon every hand, very often risking sacrifice of his life by so doing, responding to midnight calls, it matters not how inclement the weather, knowing very often when he is called that he will not receive any compensation for services rendered other than perhaps words of praise only while alleviating the sufferings of the patient, and words of condemnation after recovery if a bill is rendered; which last reminds me of a verse that I once read which I think is a typical case of ingratitude.

"God and the doctor we both adore
When in sickness, but not before;
When the suffering is o'er they are both
required,
God is forgotten and the doctor slighted."

That undoubtedly has occurred in the practice of every gentleman present.

There are not in any other profession men that are more philanthropic, more self-sacrificing, or more earnest in untiring efforts to relieve suffering humanity and to do good generally in the community in which they live. Because of the great mission that we have started out upon after bidding farewell to our alma mater, and the grand work that we are engaged in daily among our fellow-men, we are led to believe that the medical fraternity ranks second to none among the professions of the day, and yet we are more poorly remunerated than any other. The lawyer, for instance, receives a cash fee of \$5 for an office consultation, while the doctor's fee for knowledge that often is very much more important is usually \$1, and he is fortunate who always gets it in cash. But he who enters the profession solely and only for the emoluments received, does not in my mind constitute a *true physician*. Our mission is not only to aid nature in healing the sick and alleviating the sufferings of those who are in need of assistance, for the monetary return that we expect, but our sympathy should go out to those who are in distress, and words of cheer and comfort should accompany the prescription.

Professional courtesy and kindly greeting to our fellow practitioners of whatever system, should be commended if they are honorably disposed, otherwise they should be discountenanced. As physicians, and as a society, let us uphold our profession and prove ourselves to be in the eyes of the public all that we should be, and at all times discourage any pretension or tendency whatever to charlatanism, quackery or petty jealousy. Life is too short to take the advice of David Harum to "Do unto the other fellow as he would do unto you, but do it first", which it is needless to say is not the golden rule. But let us grant to others, regardless of school or system, what we claim for ourselves, the right to legitimately practice our profession with the view that each one stands or falls upon his own merits.

No one can afford to practice medicine for glory alone, so a fair compensation for services rendered is also an important factor in

a successful practice, and the standard of our profession should be maintained in that particular, and an established fee system inaugurated and adhered to at all hazards, in order to protect ourselves as a fraternal society. Speaking of protection, do we as members of the medical profession always live up to and practice the friendship toward each other that we should? And is there today the professional etiquette manifested among medical men practicing in the same community that there should be? I am afraid, gentlemen, that there is vast room for improvement, and what is needed as much as anything else in our noble calling, is more charity for each other. Let us then refrain from indulging in petty jealousies, rivalries, and personalities. If one physician should perchance become more fortunate than his brother in his professional attainments and skill, he should be congratulated and encouraged to continue in his investigations that the profession generally may be benefited thereby.

Neither is it tact or good policy to speak unkindly to our patients of those of any other school if they are pursuing a legitimate practice and have conformed to the requirements of the laws of our state, for they have equal rights with others and should be accorded the same privileges.

What a mixture a doctor's life is. It is certainly not always one of ecstatic joy. He is supposed to be at all hours at his post of duty, ready to respond to the beck and call of the public; no regular time for rest or recreation, and in the event of an unavoidable death occurring in practice, is subject to adverse criticism. Yet, I fully believe that the rank and file in every community appreciates an honest, conscientious and matter-of-fact doctor. So, regardless of the opinion of the world, I trust that we will be true to our fellowmen, true to our God, and true to ourselves. William Cullen Bryant once said:

"Truth crushed to earth shall rise again—

The eternal years of God are here—
But Error wounded writhes with pain,
And dies among his worshippers."

There is no class of men whose actions and

deportment are more carefully watched and commented upon by the public than physicians. Shall we not then be like Cæsar's wife, not only virtuous but above suspicion?

Young girls, and married women as well, have come to my office pleading, with tears, asking for some emmenagogue; the young woman with a plea to prevent disgrace and save her character, and the married woman with a pretext that she already has more children than can be properly supported. In every case, and I have had quite a number of them, I invariably point out to them not only the great danger of the procedure but also its criminality. If they still insist that I must render them assistance, and refuse to listen to reason, I then at once meet their earnest entreaties in a language that is unmistakable and promptly refuse to entertain any proposition whatever, firmly believing that it always pays to follow the dictates of your conscience and never is safe to do wrong. I knew of a brilliant physician whose prospects in life were unusually bright, but who, at the earnest solicitation of his patient, performed an operation that was both illegitimate and criminal, and in consequence spent years behind prison bars.

In my opinion there is no better safeguard or shield to the medical practitioner than to become identified with a good medical society. Such an organization not only affords protection but gives prominence to its members as well. And apart from the intellectual feast that we are sometimes treated to at our society sessions, by the reading and discussion of papers of interest, the social features of these gatherings are of great importance. The pleasant greetings and hearty handshakes extended by members more than repay one for the sacrifice he makes in leaving home and practice to be present at our society meetings.

To be able to discern the likes and dislikes of our patients, to be careful and thorough in our diagnosis of disease, and to keep abreast of the times by reading something more than the daily newspapers, goes farther toward making up the component parts of a successful physician than fluency of speech

or the facility of expression. Common sense is also, I think, one of the essentials of a successful professional life, and in a measure should supersede too much theory. A certain portion of theory may be proper, but practical experience and foresight tintured with mother wit judiciously applied, in my opinion, bring better results.

Speaking of the poor, the physicians render more unpaid services than any other class of people in the world. The poor, said a renowned physician once, are my best patients, for God will be their paymaster. But even in doing charity we should discriminate. There seem to be two classes of the poor—the Lord's poor and the devil's poor. I have found that the less we have to do with the latter and the less strength and health we expend on them the better it will be as a rule for us. They are in many instances the lowest and meanest victims of vice, intemperance and sensual indulgence. It matters not what attention may be given such persons, they are usually ungrateful, and I cannot contemplate a greater sin than ingratitude for services rendered when no remuneration is received, especially when we must face contagion and inhale noxious gases or vapors, encounter the filthiest kind of filth, and perform many distasteful and disgusting duties. As servants of the public, we must endure August suns and the blasts of winter months. We are supposed to respond to the calls of Tom, Dick and Harry, whether at noon or the midnight hour. While others are resting or refreshed with sleep we must work.

Some one has divided man's life into 4 periods, and called the first 20 years the period of preparation, from 20 to 40 the period of struggle, from 40 to 60 the period of victory, and after 60—rest. Not so with the physician; his struggles last until life ends.

Dr. Jarvis estimates the average length of life of a physician at 56 years. If you begin practice at the age of 24, your active life prospect will be 32 years, and from \$1000 to \$1500 will represent your average yearly income. From the day of leaving college, through all the phases of our professional

life down to old age, with not even a Sunday to rest or to call your own, you would have but little after all expenses are met to support you after you naturally reach the downhill of life, or are broken in health and in need of a physician yourself through worry, anxiety and fatigue in the discharge of duty, and by such faithfulness Heaven knows that we deserve better treatment and more comfortable support than we oft-time receive.

The subject being a broad one, much more could be said if time would permit and you had the patience to listen, but I will desist, and in conclusion let me exhort you, as did the apostle his disciples: "Giving all diligence, add to your faith virtue, and to virtue knowledge and to knowledge temperance, and to temperance patience, and to patience godliness, and to godliness brotherly kindness, and to brotherly kindness charity."

SOME INTERESTING DISCOVERIES IN MEDICAL SCIENCE DURING THE PAST HUNDRED YEARS*

H. W. BAUER, M.D.,
Palmyra, N. J.

As the year 1929 marks the one-hundredth anniversary of the Burlington County Medical Society, it is the purpose of this paper to review some of the most important discoveries in medical science during that period. While medical history abounds in brilliant advances and famous men prior to the nineteenth century, yet it remained for that period to bring forth scientific facts which helped materially to place medicine and surgery on the highest plane yet reached.

In 1828, Friedrich Wöhler demonstrated that urea could be prepared by heating ammonium cyanate. This experiment revolutionized the conception of chemistry of life process and led to the synthesis of such complex compounds as the polypeptids and the carbohydrates, by Emil Fischer. This and Wöhler's further finding of the synthesis of

* (Presidential address before the Burlington County Medical Society, November 13, 1929.)

hippuric acid by the body after ingestion of benzoic acid, mark the beginning of study of the chemistry of life processes. The name "metabolism" was given to these changes by Liebig.

The greatest name in medical science during the last century was Pasteur, because his influence was most far-reaching, and to him is due our basic knowledge in bacteriology, immunology and serology, and our principles of asepsis and antisepsis, as well as our knowledge of vaccination against certain diseases. In 1848, Pasteur investigated the nature of the isomeric compounds—tartaric acid and rasémic (paratartaric) acids, and after this he worked on fermentation and spontaneous generation. His experiments to prove the presence of germ life in dust-laden air were so clearly demonstrated as to cast aside belief in spontaneous generation.

Joseph Lister, an English surgeon, was much impressed by Pasteur's work and began to use a phenol solution in preparation for his surgical operations. This procedure so lowered the mortality that deft surgeons began to operate on the peritoneal viscera, on the blood-vessels, and even on the brain, with splendid results.

Oliver Wendell Holmes, of Boston, in 1843, and Egnaz Philip Semmelweis, a Hungarian, in 1847, observed that puerperal fever was caused by the uncleanness with which the physician handled his obstetric cases, and the latter investigator, with proper precautions (washing his hands in a solution of chloride of lime), reduced his mortality from 10% to practically 1%.

Pasteur later discovered the vaccine against sheep anthrax. This led to experiments in the treatment of hydrophobia along similar lines, and in 1885 that treatment was described. In 1878, Pasteur described the *Staphylococcus pyogenes aureus* and the *Streptococcus pyogenes*, and in 1880 the *Pneumococcus*. These studies stimulated interest in this new science of bacteriology, and such men as Jacob Henle and Robert Koch came into prominence.

Koch discovered the tubercle bacillus in 1882, the cholera bacillus in 1883, and then

later developed his famous postulates regarding germ life. In 1906 he discovered in atoxyl the remedy for sleeping sickness. Others who made important advances in bacteriology were Edwin Klebs, Friedrich Löffler, Albert Neisser, and Carl Joseph Eberth. Ehrlich and Metchnikoff by their experiments developed the sciences of immunology and serology.

About the middle of the nineteenth century, ether anesthesia was discovered, and the honor fell to William T. G. Morton, of Massachusetts. In 1846, John C. Warren performed the first surgical operation under ether at the Massachusetts General Hospital. A little later, chloroform anesthesia was used in obstetrics by James Young Simpson, of Scotland. These wonderful discoveries, in addition to the knowledge of antisepsis up to that time, had a marked influence on the development of surgery.

The teachings of Lister were accepted by a number of surgeons in Europe, especially Theodore Billroth, who made the first resection of the esophagus in 1872, and the first resection of the pylorus for carcinoma in 1881. This work stimulated more interest in pathology of the abdominal organs, and brilliant men, both in Europe and America, came into prominence in the surgical field: Czerny, Thiérsch, Von EsMarch, Paget and Hutchinson, in Europe; and Bigelow, Gross, Keen, Senn and the Mayo brothers, in America.

In gynecologic surgery, America was given credit for the initial advances; through the work of McDowell, of Virginia, and Sims, of South Carolina. Likewise, the specialties of obstetrics and ophthalmology made rapid progress, and a complete change in the conception of animal physiology and pathology occurred as a result of the great discoveries made in microscopy. Clinical medicine was greatly aided by these studies and more accurate, scientific measures were developed in the diagnosis and treatment of sickness.

A short time before the middle of the nineteenth century, experimental work in physiology brought to light many new facts. Johannes Müller, of Germany, whose scientific

observations in physiology, psychology, morphology, embryology, chemistry and pathology stimulated great interest in these subjects, contributed studies on the sensations, the lymph-heart in the frog, experiments on the vocal chords and the voice, vision and color appreciation, isolation of chondrin and gluten, and discovery of the function of the bristle cells of the internal ear. Herman von Helmholtz, a pupil of Müller, measured the velocity of a nervous impulse. His studies on optics and acoustics are classical. In 1851, he invented the ophthalmoscope. Carl Ludwig, DuBois-Réymond and Hugo Kronecker were also of the German school of physiologists.

About this time, a great school of scientific investigation was developed in France, Claude Bernard being the most prominent worker. He described the glycogenic function of the liver, in 1857, and later made it clear that this function was in the nature of an *internal secretion*. He also described the glycosuria that followed puncture of the fourth ventricle, studied pancreatic digestion, the heat regulation of the body, and described vasodilator and vasoconstrictor nerve effects on the circulation. He investigated the influence of pancreatic juice on starch, fats and proteins, and demonstrated that it not only emulsifies but breaks up fats into fatty acids and glycerol.

Bernard's pupil, Willy Kühne, of Hamburg, identified the proteolytic enzyme of the pancreas, which he called trypsin. The Russian physiologist, Ivan Petrovich Pavloff, also made thorough studies in the chemistry of digestion and the effect of nervous stimulation on the quality and quantity of the juices secreted. He also wrote an important work entitled "The Work of the Digestive Glands".

In 1840, study of the physiology of metabolism was begun by Justus von Liebig and Friedrich Wöhler. The former published a dietary study of an attempt to estimate the carbon balance on a company of soldiers. In 1862, Max von Pettenkofer perfected his respiration apparatus, and published the results of experiments in collaboration with Carl von Voit. In 1883, Johann Kjeldahl perfected a

method for the determination of nitrogen, and metabolic studies were made by Ranke, Max Rubner, Edward Pflieger and Carl von Noorden in Germany, and by Atwater, Chittenden and others in America; by Malfatti, Albertoni and Novi in Italy; by Grandea and Leclerc in France; by Paton and Worth in England; and by several Russians.

The subject of endocrinology was given impetus by the work of Claude Bernard. In 1855, Thomas Addison wrote his book "On Constitutional and Local Effects of Diseases of the Suprarenal Capsules". In 1889, Charles Edouard Brown-Sequard found that subcutaneous injections of extracts of testis exercised considerable influence upon the general health as well as upon muscular power and mental activity. He also produced Addison's disease experimentally by extirpation of the adrenals in animals, and contributed studies on testicular therapy and glandular treatment of acromegaly.

A Jewish physician, Moritz Schiff, experimented with the effects of excision of the thyroid in dogs, and the cure of these effects by thyroid grafts and by thyroid extract given internally; and to this physician is due the credit for discovery of myxedema and cretinism. In 1889, Von Mering and Minkowski described the artificial production of diabetes mellitus following excision of the pancreas.

Discovery of the effect of adrenal extract, by Oliver and Schäfer, the study of thyroid diseases by Graves, Basedow, Slemmon and others, the discovery of iodine in the thyroid gland by Baumann, the study of parathyroid disease by Sandstrom, Gley Halse and others, of pituitary disease by Mohr, Pierre Marie, Fröhlich, and Harvey Cushing, of the thymus by Kopf, Richard Bright, and Paltauf, and of the sexual glands by Paton and Batty, have added much important data to physiology.

The "cell theory" was brought forward by Schleiden and Schwann in 1838. They demonstrated that all plants and animal tissues are identical in their ultimate structural composition, and they concluded, in the words of Schwann, "that the elementary parts of all

tissues are formed of cells in an analogous though very diversified manner, so that it may be asserted that there is one universal principle of development of the elementary parts of organisms, however different, and that this principle is the function of cells".

The mammalian ovum was discovered in 1827 by Karl Ernest von Baer, who thought that the germ layers were 4 in number and it was Robert Remak who explained that the 2 middle layers were really a division of one—the mesoderm. In 1861, Carl Gegenbaur discovered that the ova of all vertebrate animals, regardless of size and condition, are in fact only simple cells, and in 1865 this was also proved to be true of all sperm cells.

These studies brought about great advancement in histology. Jacob Henle, one of the greatest histologists of that time, studied the character of epithelial cells of the skin and mucous membranes, described the involuntary muscle fibers in the tunica media of the blood vessels, gave an accurate account of the histology of the cornea, and pointed out important new facts in brain anatomy, pituitary gland and kidney histology.

Robert Virchow was the father of cellular pathology and proved that all cells come from parent cells, this being the foundation of his treatise on tumors. Virchow first described leukocytosis. He also described arthritis deformans, studied the histology of the neuroglia, and discovered the lymphatic sheaths of the cerebral arteries.

Julius Conheim, a pupil of Virchow, contributed much to our knowledge of inflammation and suppuration. He experimented on tuberculosis and on the nerve endings in muscle, and introduced newer pathologic methods. Some of his pupils were Heidenhain, Ehrlich, Neisser, Weigert, Welch and Councilman. Carl Weigert introduced methods for staining bacteria by anilin dyes and contributed studies in renal disease, small-pox, and pathology of the nervous system and veins.

During the first half of the nineteenth century there were many so-called schools of medicine, practicing their own fads and fancies. Oertel described the situation as fol-

lows: "There did not exist a well-founded universal scientific method of thought, investigation, or teaching, but only opposed and battling schools and systems of Hahnemann, polygramasia, Rademacher's system, Priessnitz's system, therapeutic nihilism, eclecticism, Bouillaud's bleeding to unconsciousness of the patient, Dietl's absolute condemnation of bleeding as a criminal offense (1849), mesmerism and others." They formed the source of senseless and endless discussions, for they were all speculative, and contributed much to the entertainment of their defenders and the laity but not to the benefit of patients.

However, toward the latter half of the nineteenth century, the wonderful advances made in the laboratory influenced the practice of the healing art. Clinics, hospitals and research laboratories were established in Germany, France, England and in the United States, where students were instructed in the art and science of medicine by eminent clinical teachers. In Germany there were Friederich Theodor von Frericks, Kussmaul, Traube, Ziemssen, von Leyden, Nothnagel, Senator, Naunyn, von Noorden; in England, William Withey Gall, Samuel Wilks, Fagge, Golding Bird, Thomas Clifford Allbutt; in America, Sir William Osler, Emanuel Libman, William Sidney Thayer, Frank Billings, and others.

Great progress was made in psychology and psychopathology during this period, and among the leaders may be mentioned Pierre Janet, Alfred Binet, Adolph Meyer, von Krafft-Ebing and Havelock Ellis. Coincident with the study of therapeutics and physiology, pharmacology was developed. Among some eminent pharmacologists were Oswald Schmiedeberg, Karl Binz and Hans Meyer, in Germany; Wood Abel, Hunt, Sollman and Samuel James Meltzer, in America; and Sir Thomas Lauder Brunton and Arthur Robertson Cushing, in England.

Toxicology reached a high point early in the past century. The detection of arsenic, by the previously observed properties of hydrogen arsenid, by James M. March, occurred in 1836. In 1839, Orfila extracted quantities

of arsenic from the liver, spleen, kidneys, heart and muscles of the human cadaver. Fresenius and von Babo developed a process for the systematic investigation of all mineral poisonings in 1844. In 1851, Stas devised a scheme for the separation of alkaloidal poisons from the cadaver.

"Medicine", says Prof. Vaughn, "consists of the application of scientific discovery to the prevention and cure of disease. All else which may go under the name of medicine is sham and fraud."

Max von Pettenkofer, a German physician, inaugurated the science of experimental hygiene. He studied the effects of various diets on health, the influence of ventilation of dwellings, methods for the estimation of carbon dioxide in the air, relation of atmosphere to clothing, and the relative advantages of stove and hot-air heating of homes.

Coincident with the rapid advances during that period, was the establishment of modern hospitals, where women served as nurses. It was Theodore Fliedner, a pastor, who originated the idea of training women in care of the ill. During the Crimean War (1854) Florence Nightingale went out with a body of nurses to attend the sick and wounded brought in from the battlefield. To this nurse is given credit for establishing a teaching institution for nurses.

The public authorities, aided by the advice of the medical profession, began to function more efficiently by installing systems of filtered water and good sewerage, by the passage and enforcement of laws tending to regulate the building of residences for the poor, control by local boards of health of persons suffering from contagious diseases, and by the free distribution of vaccines and antitoxins. It is to the prophylaxis of disease that the future generations will owe their safety.

In conclusion, I wish to express my appreciation to the officers, the committees and the individual members of this society for their whole-hearted support and coöperation during the year. It has been both a pleasure and honor to be your president, for which I am thankful.

MEDICAL ASPECTS OF DIABETES MELLITUS*

HOWARD F. ROOT, M.D.,
Boston, Mass.

Diabetes presents important diagnostic problems of varied types. May I call your attention first to the importance of the diagnosis of diabetes itself? Consider for a moment the seriousness to the patient, for once the diagnosis is established the patient must be treated throughout life. Consider the severity of the regimen, the strictness of diet, the limitations of his activities imposed. Remember, on the other hand, the failure to recognize diabetes in the patient who for months is allowed to proceed to a critical stage, even to coma. Only recently a child was seen, who at the age of 8 months had developed typical symptoms. The mother boiled 3 qt. of water daily to satisfy his thirst, and yet the diagnosis was not made until 6 months later when the child was finally unconscious. We must not condemn an innocent patient to a life of diabetic dieting unnecessarily, nor must we fail to make use of every method to establish the diagnosis if the disease really exists. No symptoms are necessary for the diagnosis of diabetes. Only a urine test can be relied upon, and when this is indecisive a test of the blood sugar is the last resort.

The problem of diagnosis most commonly presents itself when the urine routinely tested gives a slight reduction or a green test. Recently a child aged 2 years was examined by a physician as preliminary to adoption into a foster family, and a trace of sugar found. Out of 57 urine tests carried out during the next 3 weeks, 30 showed a green color with Benedict's test. Is this child a diabetic or not? The blood sugar obtained 1 hr. after a meal is normal. I doubt that the child will prove to be a diabetic, yet I cannot disprove that diagnosis without at least 6 months observation. Very few children showing a green test for sugar on repeated examina-

* (Read at the November, 1929, meeting of the Passaic County Medical Society.)

tions over a period of 6 months, but no larger amounts of sugar, prove to be diabetic if in the course of 6 months further observation no greater amounts of sugar and no abnormal symptoms develop.

In adults the problem of diabetic diagnosis is no less difficult. Here again the importance of the diagnosis concerns the patient's happiness, his chance to obtain insurance, and his personal safety. Many cases with small amounts of sugar in the urine are difficult to classify. In order to avoid classifying patients as diabetics when they are not true diabetics and yet to bring home to the patient the importance of prolonged observation, a classification recommended by Dr. Joslin is used. All patients with sugar in the urine can be classified under 1 of 4 headings:

(1) Diabetes mellitus. Sugar in the urine varies in amount according to changes in diet; increases with larger amounts of carbohydrate and decreases as the carbohydrate is diminished. Diabetic symptoms, such as polyuria and polydipsia, may or may not be present. The blood sugar exceeds 0.12% fasting and 0.16% after a meal or after a glucose tolerance test. If the blood sugar following a glucose tolerance test consisting of 100 gm. glucose given with water does not return to normal within 2 hours it is suggestive evidence of diabetes.

(2) Renal diabetes. Sugar in the urine, often considerable in amount, is very little influenced by changes in diet. If the urine ever becomes sugar-free it is only after very severe restriction of carbohydrate in the diet. Often the use of a diabetic diet leads to development of acidosis, rather than the reverse as in true diabetes. A family history of benign glycosuria is frequently found. The blood sugar is normal even with sugar present in the urine and does not exceed normal limits of 0.16% after test diets or a glucose tolerance test. The treatment consists in maintaining body weight at normal for the age and sex. No special dietary or insulin treatment is needed, but the blood and urine should be repeatedly examined during the next year.

(3) Potential diabetes. Small amounts

of sugar varying from 0.1 to 0.5% occur in the urine at times but disappear with mild dieting. The blood sugar is 0.12% or below in the fasting state and rises to 0.15% or 0.16% following a meal or a glucose tolerance test. Some patients in this group may later prove to be true diabetics, but fortunately some of this group have for years continued without further change. Treatment consists of maintaining body weight within 10% of normal and restricting diet only to the extent of avoiding pastries and candy. It is important to stress to the patient the value of repeated examinations of the urine and blood for an indefinite period in order that changes in treatment may be promptly instituted if true diabetes develops.

(4) Unclassified. Cases with traces of sugar or 0.1 or 0.2% sugar in the urine are often found complicating such diseases as gall-stones, duodenal ulcer or carcinoma. In each, sugar disappears quickly with very little change in diet and the blood sugar does not exceed 0.12% fasting or 0.14% after a full meal or a glucose tolerance test. No dietary treatment is needed. Patients should be advised to maintain body weight at the normal for age and sex, and to have repeated examinations of the urine and blood to make sure they do not develop true diabetes.

Pain in a diabetic patient presents a diagnostic problem under a variety of circumstances. The chief locations for pain which cause difficulty are the legs and the abdomen. Pain in the legs in a diabetic patient may be severe, may prevent sleep and therefore cause loss of weight and strength, and it may have the most grave prognostic significance. Pains in the legs may be classified under 4 headings:

(1) Those due to abnormal nutrition in cases of inadequately treated diabetes. Usually the patient is found to have a large amount of sugar in the urine and blood. He has lost weight and has not been on a proper diet. The pain is severe, not well localized, and frequently present in the back and arms as well as in the legs. Examination shows no paralysis; general muscular weakness but no other objective findings. Recovery is usu-

ally rapid with control of the diabetes by means of diet, insulin, and physiotherapy.

(2) Those due to diabetic neuritis. Again the diabetes has not been under control. The pain is severe and frequently more marked on one side. The patient frequently complains of weakness. Examination shows loss of reflexes on one or both sides and paralysis of one or more muscle groups, with or without atrophy. The prognosis for slow recovery is good with diabetic treatment and combined with physiotherapy.

(3) Those referred from lesions of the spine such as hypertrophic arthritis. Usually there is limitation of movements of the spine with pain on spinal motion.

(4) Those due to arteriosclerosis with deficient blood supply to one or both feet. Here a history of intermittent claudication during the preceding months is usually present with pain and numbness of the feet. Examination shows absence of pulsation of the dorsalis pedis arteries, cold feet, with marked redness when they are hung down. It is of the greatest importance to recognize that deficient circulation is the cause of this pain and to warn the patient that extraordinary care of small lesions is necessary to avoid gangrene.

Pain in the abdomen is a danger signal to any diabetic. Always a telephone call from a diabetic who mentions pain in the abdomen should mean to the physician that the patient has either appendicitis or beginning coma. Consider the similarity and that delay in treatment may mean death. In each, pain in the abdomen is frequently associated with vomiting, constipation, and leukocytosis. So difficult is the differentiation that I feel that any diabetic who has pain in the abdomen, with sugar in the urine, had better either be in a hospital or under constant observation of his physician.

The therapeutic problems of diabetes and its complications are varied, yet certain fundamental principles should be called to mind whenever a diabetic patient is seen.

(1) Treatment of any diabetic patient is for life and this fact should be carried in

mind in making statements or in giving advice.

(2) Patients do better under treatment and frequent observation, by physicians than without. Therefore, it is a duty to urge them to report for observation.

(3) Education of the patient regarding his disease is essential and every office visit should be utilized to teach the patient at least one new point about his disease.

(4) Diabetic patients should keep up-to-date in their treatment. Every year adds to the experience and skill of the physician in utilizing new knowledge and new discoveries for the treatment of such patients.

(5) A general physical examination including the heart, lungs, abdomen, skin, and especially the feet, should be made at regular intervals. The physical efficiency of the diabetic patient depends in considerable measure upon preserving his general condition as well as the management of his diabetes.

It follows from these general principles that a physician who treats diabetics must constantly bear in mind 4 topics, the diet, insulin, acidosis or coma, and possible development of complications.

The diet in diabetes is now far simpler than at any time heretofore. Of course diet must be arranged in such way as to keep the urine sugar-free or nearly so and still prevent reactions. In adults the diet must be an anti-obesity diet because the vast majority of adults are obese when they develop diabetes. The limitation of fat, restriction of protein to 1 gm. per kilogram body weight, and the use of not less than 100 gm. carbohydrate per day is standard. More and more it is observed that the tolerance of diabetic patients for carbohydrate is greater than we suspected. More and more frequently we find patients, as time goes on, becoming milder and milder and with the use of moderate doses of insulin their tolerance for carbohydrate increasing. One of the greatest satisfactions in treating a diabetic patient is to observe year after year a steady gain in tolerance. In childhood relatively more calories must be given for the body weight in order to provide for growth. From 2-4 gm. pro-

tein per kilogram of body weight and from 50 to 80 calories per kilogram. Increasing the carbohydrate tolerance is best seen in a group where it might be least expected; namely, in the aged and in gangrenous cases. Seven years ago a group of such patients was discharged taking 70 gm. carbohydrate on the average. Now, the average of the group discharged from the Deaconess Hospital during 1929 was 130 gm. If you strive to improve the carbohydrate tolerance you will see surprising gains.

Insulin has no rival in the treatment of diabetes. No other drug can compare with it. Practically all children need it and all adults should receive insulin who cannot remain sugar-free, and maintain their strength and body weight without it. In general it should be started with small doses of perhaps 5 units 2-3 times a day and gradually increased or diminished according to whether the urine becomes sugar-free. In no case should insulin be used for more than a short period without carefully measuring the diet and without educating the patient or his family to the importance of measurement of food and relation of the amount of food taken, exercise carried out, and size of the insulin dose as regards the production of insulin reactions. Insulin reactions occur either when too much insulin has been given or when the absorption of food has been prevented by diarrhea, indigestion with nausea and vomiting, or mechanical obstruction such as pyloric ulcer. The symptoms are sudden weakness, sweating, trembling, double vision, unconsciousness, or mild mania and convulsions. Treatment is the administration of orange juice, glucose by mouth or, most simple of all, adrenalin chloride hypodermically. Insulin is a tonic to many diabetics and its effects upon general strength, body weight, and spirits are frequently much more marked and important than its effect upon the sugar of the urine.

Coma is still the great enemy of the diabetic. It is still the chief cause of death in children and most commonly follows the infectious complications which occur in adults. Every diabetic should know what to do to

prevent coma. He cannot make the diagnosis and therefore whenever he is sick he must consider himself in danger of coma and carry out the following rules:

- (1) Go to bed.
- (2) Call a doctor.
- (3) Have a nurse or somebody to take care of him.
- (4) Take hot drinks, a glass every hour.
- (5) Never stop taking insulin unless the urine is sugar-free.
- (6) Take an enema.
- (7) Have a quart of water ready, boiled, in case the doctor should wish to give saline solution under the skin.

Coma always threatens whenever diacetic acid is present, as shown by a wine red color in the urine upon the addition of a few drops of ferric chloride solution. It always threatens when a diabetic patient vomits, loses his appetite, or has prolonged pain in the abdomen. The diagnosis should be made long before the patient has air hunger or is unconscious. Every surgical patient is a candidate for coma because postoperative vomiting and shock, as well as anesthesia, favor its development. The treatment of coma must be prompt and energetic if the patient is to live. Not only must the acidosis itself be combated, but if the patient is allowed to reach a stage of unconsciousness it is impossible to discover and therefore to treat adequately the infection which so frequently underlies it. Infections of the kidney and of the lungs are most common. A recent patient who recovered from coma but finally died of sepsis was found at autopsy to have an abscess about the appendix of at least 2 months' duration from which had arisen abscesses in the kidneys, liver and lungs. In the coma case rarely should one give less than 40 units of insulin at the first dose, and if unconscious 100 units are usually necessary within an hour. In the first 24 hours the amount usually given exceeds 200 units if the patient has been unconscious more than 2 hours. Lavage of the stomach should be a routine in every coma case. Repeated enemas are necessary to cleanse the intestinal tract. Subpectoral infusions of nor-

mal saline solution are to be given and repeated within 12 hours. Stimulation of the circulation with caffeine in $7\frac{1}{2}$ gr. doses subcutaneously every 2-3 hours may be used.

The complications of diabetes are legion. Chief among them is arteriosclerosis involving the legs and the coronary vessels. Gangrene causes 1 out of 7 deaths from diabetes. Angina pectoris has been diagnosed 220 times and coronary sclerosis found in every case at autopsy after the age of 50 years. Tuberculosis develops so insidiously that only by frequently repeated radiographs is it ever found in an early stage in diabetics. In the elderly patient diabetes so lowers resistance that the old focus frequently flares into life. Yet even advanced cases do far better with insulin and moderate treatment than is sometimes expected. One patient, an elderly dentist, had a large cavity in one lung when the tuberculosis was discovered and a series of plates showed reduction in size and fibrosis of this cavity during the succeeding 12 months. At the same time he gained 25 lb. in weight. Suspect gall-stones in every diabetic after the age of 45. Only in this way shall we avoid missing them. It is wise to have them removed when the patient's condition is favorable. It is frequently patients on whom operation is not urged at the time of diagnosis that later develop empyema or cancer of the gall-bladder and are then forced to have an operation under the most unfavorable circumstances.

SOME PRINCIPLES IN THE TREATMENT OF DIABETES*

HENRY M. LARSON, M.D.,

Morristown, N. J.

Diabetes mellitus was until 15 years ago a discouraging problem. It was a chronic disease believed to be due to a disturbance of carbohydrate metabolism only. It seemed inherently progressive and was attended by various severe complications. Many of its

victims were very miserable. Today much of this is changed. True, its chronicity still persists. We still lack convincing evidence that complete and permanent cure can be attained. Its being due to a disturbance of carbohydrate metabolism alone is now disproved. With it, there is a disturbance of the metabolism of protein and fat as well as carbohydrate. On this conception is based its present treatment. Its inherent progressiveness is very much questioned. Cases properly treated over long periods and escaping such accidents as acute infection seem to gain rather than to lose tolerance. Many of its complications can now be prevented or postponed. And except for the rather rare very severe cases its victims can be kept well nourished, comfortable and vigorous. All this permits us to banish the pessimistic outlook which for many years was implied by the diagnosis of diabetes mellitus.

Diabetics are almost innumerable and their numbers seem to increase. Unless under proper treatment all of them have hyperglycemia. Chronic hyperglycemia leads to a further reduction of their already impaired tolerance, increases susceptibility to infection and probably accelerates the common degenerative complications such as arteriosclerosis, with its resultant gangrene, nephritis, neuritis and cataract. It also makes the potential coma case. This applies to the patient well nourished and strong, as well as to the emaciated and weak. For these reasons all diabetics should be under treatment.

It would be difficult to name a medical disease which gives more gratifying results when properly treated. In the ordinary case only the grossest mismanagement fails to produce good results. The treatment is dietary and the principles are simple and usually easy of application. All of us who are practicing internal medicine should be prepared to treat this particular disease.

Let us consider an average case and its treatment. The patient is 48 years old. His chief complaint is pain in his left shoulder and arm from which he has suffered on and off for 5 years. There have been weeks when he has not been free of it except when under

* (Read at a meeting of the Morris County Medical Society, March 13, 1930.)

the influence of sedatives. Many a night he has been sleepless because of it. The removal of several teeth good, bad and indifferent, failed to relieve him. Examinations by surgeons and treatments with various electric currents and lights have been of no help. Of late he has retired from business solely because of his infirmity. He has lost a few pounds weight during these years. This he reasonably attributes to his pain. His appetite remains excellent. He has always been a great drinker. Previous to prohibition he drank liquor in large amounts but since the saloon in his neighborhood closed he has quit. It was purely a question of convenience with him. Now that he drinks no liquor he is thirstier than ever and so drinks lots of water. This of course induces frequent urination. Further inquiries elicit nothing of interest concerning this or previous illnesses.

Physical examination of the patient reveals the following. He is 5 ft. 7 in. height and weighs 186 lb. clothed—25 lb. above standard. Overweight is common among diabetics; it is probably an etiologic factor. It is always a handicap. A very moderate peripheral arteriosclerosis and systolic blood pressure of 168 are the only abnormal findings. These are common findings in diabetes of long duration. Laboratory examinations reveal a trace of albumin and over 1% of glucose in his urine. His fasting blood sugar is 256 milligrams per cent.

This patient's disease is easily diagnosed. He has diabetes mellitus. Diabetes is a disturbance of the metabolism of protein, fat and carbohydrate. It is due to disease of the pancreas, and proper treatment aims to offer adequate functional relief to the over-strain of the impaired function of this organ. The only way this man can get relief is by living on a lower plane of metabolism. He can do this by reducing his weight. The diabetic does best when at standard weight or 5 to 10% below. Hence he must be underfed until this desired condition is attained. In doing this the total calories consumed daily are of more importance than the various proportions of protein, fat and carbohydrate.

We shall prescribe for this patient a diet

consisting of protein 75 gm., carbohydrate 75 gm. and sufficient fat to make the calories total 1500. This gives him about 1 gm. protein per kilogram of standard weight, enough carbohydrate to permit a palatable diet, and a small enough total to induce prompt reduction in weight. Let us say here that with the present accepted treatment of diabetes it is more necessary than ever before to calculate actual diets in terms of grams of protein, fat and carbohydrates and in calories. If the physician is unable or unwilling to do this he is not fit to treat the disease and should leave it to someone else.

Now what results do we see in a patient kept on this diet? He complains that it is sparse after what he has been consuming but he soon feels that it is worth-while. The thirst is diminished and the urination is lessened. Pain from which he suffered so severely rapidly diminishes until his attention is seldom drawn to the arm. Loss of weight is soon apparent. Increase in the feeling of well being is noticed. Laboratory tests reveal a lessened output of sugar in the urine. Before long the urine is sugar-free. The fasting blood sugar gradually falls and it is not long before it is found to be below 150 mgm. per cent.

When his weight nears 160 lb. we shall gradually increase his diet by addition of fat to enough calories to maintain it there. That will require perhaps about 2500 calories daily, allowing 35 calories per kilogram for one doing little work, and will raise his fat to just above 200 gm. We can not be too arbitrary in stating the exact number of calories needed for various purposes. The number depends upon height, weight, basal metabolic rate, digestion, absorption and physical activity. Most of these factors we must guess so we might as well guess them all and try out the result of our guessing. At this point our patient has a satisfactory weight and maintains it. He will probably be symptom free and more vigorous than he has been for a long time. His urinalysis will, we expect, show him to be sugar-free throughout the 24 hours. Another examination will show his fasting blood sugar to be

approximately normal. If so we will maintain this condition by continuing the prescribed diet. If these desirable conditions fail to materialize at 160 lb. we will underfeed him still further, reduce his weight to 10% below standard and stabilize him there. Here the desired conditions will probably be realized. If they are we will hold him at this weight.

While treatment is progressing there is much to teach this patient. The more he is capable of learning and the more he heeds what he is taught the more successful will he be. He must be taught the cause of his disease and its symptoms and the principles of its treatment. He must realize that self discipline is to be his salvation. He must be aware of the rules of personal hygiene so necessary to the diabetic. He must have some knowledge of the complications and accidents to which diabetics are prone and how they may be prevented or halted. He should learn to calculate his diet and to measure it, to examine his urine daily and keep an accurate weight record. The utmost importance of reporting the appearance of sugar in his urine, any fever or other sign of infection, especially any digestive upset or acute respiratory infection, must be impressed upon him. A regular time to report to his physician at intervals of a month or two must be insisted upon even when everything is going well. This gives an opportunity to talk things over generally and to check what the patient reports. At these intervals examination of the blood is desirable as an added control on the patient's condition. At least twice a year a very complete physical examination should be made in order to detect at an early date signs of those complications which are easily overlooked because they cause no symptoms until quite advanced. Finally, he must have proved to him that even the wisest patient is unfit to take over from his physician the management of his own case.

As such a patient continues in a satisfactory state over a period of time, barring incidents such as intercurrent infections, we may hope for an increase in his carbohydrate tolerance and are wise to take advantage of it.

We may make his diet more nearly the usual diet of a well person by gradually substituting, calorie for calorie, carbohydrate for fat. How far it may be wise to pursue this course we do not know. Probably 200 gm. carbohydrate should be the limit even in the mildest diabetic. Never should we disregard the total calories or we may soon have an increase in weight to above standard, an increase in total metabolism and a reduction of tolerance.

If a patient can not tolerate sufficient food to maintain him at a satisfactory weight, vigorous enough for his ordinary duties without glycosuria and without a blood sugar much above normal, or when severe complications supervene, insulin is indicated. Insulin is an extract containing the internal secretion of the pancreas. The only effective way of administering it is by injection subcutaneously or intravenously. When so administered it enables the diabetic to utilize carbohydrate in a normal manner and causes a reduction of the concentration of sugar in the blood. It does not cure diabetes any more than thyroid substance cures hypothyroidism or liver cures pernicious anemia. Nor does it cure the complications of diabetes. The exact mechanism of its action is still unknown. It cannot be replaced nor is its action enhanced by any other gland medicine. The optimum dose for a given case can not be theoretically calculated. The quantitative action varies in different cases. Unit for unit it varies from time to time in the same case. Complications multiply the insulin requirement. As the total dose is increased each added unit becomes less effective. Its dosage is not regulated by total metabolism. If the metabolism of a diabetic is increased by increasing weight the need for insulin is increased. If his metabolism is increased by increasing exercise the need for insulin is decreased.

If insulin is taken in an excessive dose the patient is in danger of insulin shock. This shock is more easily induced in the afternoon than in the forenoon. As an immediate danger it may exceed even coma in seriousness. It is a danger which may produce death in a short time. It produces rather definite symp-

toms. From the history, symptoms and signs it is usually rather easily diagnosed and fortunately we have a specific and prompt acting remedy. The symptoms and signs of insulin shock are these: The patient suddenly becomes hungry, weak and very nervous; there is pallor or flushing with sweating and an increase in pulse rate; diplopia is common; there are vertigo, emotional disturbance, excitement and confusion; there may be convulsions, unconsciousness, collapse, and death; always there is a decrease in blood sugar; usually there is a reduction but in some cases the blood sugar concentration is not reduced to below normal. Regardless of concentration of the blood sugar the absorption of carbohydrate by the patient relieves the symptoms in a few minutes. The carbohydrate may be given in the form of sugar, syrup or orange juice by stomach, or as a dextrose solution by vein; $\frac{1}{2}$ oz. carbohydrate every $\frac{1}{2}$ hr. until symptoms abate is enough to give relief under any circumstance.

When we come to prescribe insulin for a patient the immediate problems are when to give it, how often to give it, and how much. Insulin effect appears in about $\frac{1}{2}$ hr., reaches its maximum in 2-4 hr., and is exhausted 6-8 hr. after administration. Carbohydrate metabolism starts 5-10 minutes after ingestion. For these reasons $\frac{1}{2}$ hr. before meals seems as good a time as any to set for its injection. Two or 3 doses daily are usually given. Two doses suffice in most cases. Occasionally certain patients whose blood sugar is found high in the early morning hours are given a small dose at bedtime or very early in the morning without food. The largest dose is usually required at breakfast time and the smallest at noon. The amount to be given at each dose can not be arbitrarily fixed. The optimum is enough to abolish glycosuria and reduce glycemia to normal. When there is glucose in the urine it is usually safe to give 1 unit per day for every 2 gm. excreted. Beyond that amount the dose may be cautiously increased. When the urine is sugar-free and caution is necessary the concentration of blood sugar must be used as a guide in determining further dos-

age. In severe cases the daily dose necessary may total as high as 100 units. When this point is reached it is often difficult to steer the way between the dangers of hyperglycemia and insulin shock. Our resort then is to establish a still lower plane of metabolism by still further reducing the patient's weight.

If our patient must use insulin it is quite necessary to educate him as to what it is, when it is indicated, its uses and its dangers and the technic of administration.

Coma is one of the dramatic incidents of diabetes. It is met with most often in 2 groups of patients, in children and in those who have had the disease for but a few years. In cases of 10 years' duration coma is not common. Folly and ignorance are important factors and personal histories fall into several groups. There are those who throw discretion aside, break diet, over-eat and reduce their tolerance. There are those who permit themselves to become over-weight on insulin just because it is possible and pleasant and so reduce their tolerance. There are others who suffer a gastro-intestinal upset, can not eat and through ignorance omit insulin unaware that every insulin-taking diabetic is over-eating as far as his own resources are concerned and that when he omits food he over-eats his own tissues.

Then comes the group with acute infections. Infection plays a major rôle in diabetes. It sometimes precipitates the disease, usually aggravates, and not infrequently terminates it. Chronic infection gradually reduces tolerance but acute infection brings about sharp sudden changes in the diabetic picture. The patient with acute infection may stop eating and omit his insulin, forgetting he is then eating his own tissues. Or he may continue his usual insulin but infection may reduce his own tolerance and at the same time reduce the efficiency of the drug while fever increases his metabolism. In these cases the result is often insufficient carbohydrate metabolism resulting in incomplete combustion of fat with the production of acid bodies in sufficient quantity to so reduce the proper alkalinity of the blood as to produce acidosis.

The coma of acidosis does not come with

great suddenness out of a clear sky. It is preceded by a train of symptoms often lasting 24 hours. They are loss of appetite, nausea, vomiting, restlessness, drowsiness and vague pains, often abdominal. The patient may show a subnormal temperature, sometimes as low as 94° though with certain complications it may be 10° higher. The breath has a fruity odor. The respiration is increased in frequency and depth without cyanosis, often Kussmaul in type. The pulse rate is increased, and may reach 200. Irregularity occurs, sometimes auricular fibrillation. Blood pressure may be reduced as low as 60 systolic. The patient is in shock. There may be abdominal distension and marked loss of tension of the eyeballs. Dehydration is common. There is coma without paralysis. Pulmonary symptoms are not common. The circulatory and renal symptoms, though common, are not usually of the greatest importance. Absolute coma, so frequent in the past, is now less common. Education of patients and the vigilance of their attendants account for this. Urine examination usually reveals a scant urine of high specific gravity, with albumin, casts and red blood cells. Sugar is present usually in amounts of less than 5%. Acetone and diacetic acid are usually present. The blood shows an increase in sugar content—the milligrams per cent varying from 200 to 1600. There is an increase in non-protein nitrogen which may run well over 100. The carbon dioxide combining power is markedly reduced, at times as low as 5. Ketonemia is present. Leukocytosis is often marked and may reach 80,000.

Fortunately for the patients, prognosis in this condition does not depend upon the laboratory reports. Chemistry is no criterion. The prognosis depends, if the patient is not already moribund, upon the complications present, the promptness of treatment and the skill and judgment of the physician in charge. Other things being equal, the younger the patient the more favorable the outlook but even those over 70 years of age have recovered. The dangers are the acidosis itself, circulatory failure, blocking of the kidneys, dilatation of the stomach and possibly alkalosis from vom-

iting, from alkali administration, and perhaps from the liberation of basic substances by insulin.

The patient should be handled with great gentleness but treatment should be promptly administered. Some of these patients seem to be saved or lost in the first few hours. If there is hypopyrexia external heat should be applied. The rectum should be emptied by enema. If the stomach is dilated or if vomiting is persistent, the stomach should be washed as gently as possible. Normal saline solution up to 1000 c.c. should be given at once subcutaneously. It should be borne in mind that the giving of fluids by vein in this condition should be done very slowly because of the danger of cardiac failure. When swallowing is possible hot liquids such as coffee, tea or broth should be given in doses of 8 oz. or less every 4 hours. Sweet drinks such as orange juice or ginger ale may be given up to 16 oz. in the first 24 hours. Caffein sodium benzoate in 5 gr. doses every 1-2 hr. for 6 doses may be of great help in overcoming the circulatory condition. Meanwhile, any infection which may be relieved should be attended to as soon as possible. All the foregoing treatment is supportive and aims to keep the patient alive until the metabolism of carbohydrate can be induced, for it is the metabolism of carbohydrate that overcomes the acidosis and saves the lives of these patients. For this effect we are dependent upon insulin. The first dose should be given as soon as the condition is diagnosed, and doses repeated until the sought-for results are forthcoming. Here again the amount needed is impossible to foretell. In trying to determine dosage it must be remembered that acidosis reduces efficiency of the drug; 10-40 units of insulin may be given subcutaneously every $\frac{1}{2}$ hr. until there are signs of returning consciousness, normal breathing and a decrease of sugar in the urine. At this point it must be borne in mind that clinical improvement frequently anticipates improvement in the laboratory findings. After this, insulin may be given every 2, 4 or 6 hr. in 5, 10 or 15 unit doses until the urine is sugar-free. When it is, insulin should be with-

held. In a large series of cases, the average amounts of insulin given in coma cases were 150 units the first day, 60 the second and 50 the third. We should let no patient die of acidosis without the benefit of at least 200 units of insulin. All through the period of administration of insulin the dangers of insulin shock must be borne in mind. While there is abundant sugar in the urine the patient is safe from this danger. As for the use of alkali in the treatment of acidosis there is still much argument. We know that large series of cases have been successfully treated without its use.

Treatment beyond the point of return of consciousness, normal breathing and an improvement of the laboratory finding, consists in the induction of the metabolism of 50 to 100 gm. carbohydrate a day for a few days and then return to the diet proper for the individual.

SURGICAL ASPECTS OF DIABETES*

INGLIS FOLGER FROST, M.D.,
Morristown, N. J.

About 10 years ago insulin was first introduced to the medical profession, and its advent produced almost immediately a new interest in the surgical diabetics. Great studies were made and there soon developed a new technic in relation to the operative procedure on these patients. Operations such as gastro-enterstomies, entero-enterostomies, hysterectomies, cholecystectomies and prostatectomies were now brought into the realm of possibility and the high mortality of 40% and 50% was reduced to about 11%; Foster and Wilder have cited even lower figures.

Diabetes is a disease where the secretion of insulin by the islands of Langerhans is deficient, and this results in inability of the body to utilize the carbohydrate which is usually ingested or stored in the tissues, which naturally brings about an excess of sugar in the blood and also in the urine; al-

though it must be borne in mind that some patients have a low threshold and may spill sugar easily; also, on the other hand, there are patients who have a high threshold, showing no urinary glucose but yet having a high blood sugar.

Joslin says "All diabetes is serious but it is more so when complicated with a surgical condition". And further, "every other diabetic becomes a surgical diabetic before he dies". It is an interesting fact that about one-third of the operations upon diabetics are for amputation of part of an extremity.

There are several factors of importance that go to make the diabetic a surgical problem. First, there is a great tendency to wound infection due in some measure to decreased resistance of tissue and diabetic acidosis; also it is supposed that the large amount of glucose has some effect on infection, but it is probably due to disturbances of metabolism and a poor concentration of carbohydrates. Such an example of this wound infection may be found in the frequency of carbuncle where the sloughs are slow to separate and the healing exceedingly slow, and there are also the ever lurking acidoses and toxemias in the background.

Secondly, the complication of arteriosclerosis plays an important part. Any uncontrolled case presents this picture as well as the diabetic of advanced years. Allen believes it due to malnutrition and degenerative changes. Arteriosclerosis under 35 years is not common, while above 50 years it is nearly always present. Shield Warren demonstrated in 19 autopsies that any case of over 5 years standing is arteriosclerotic, while Drs. L. B. Morrison and Boyan demonstrated by x-rays arteriosclerosis in 90% of 110 cases of 10 years' duration.

It is also a well-known fact that all gangrene and gall-bladder diabetics have coronary disease. In Wilder's series of 33 deaths following operations, the aorta was involved in every patient over 30 years, and also in a boy of 16 there were decided changes in the arterial walls.

We see, then, the closely woven relationship between arteriosclerosis and diabetes, but

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it is also an interesting fact that mild cases and cases of short duration do not show sclerotic changes, and further there may be a regeneration of the pancreas even in an arteriosclerotic patient having diabetes. To paraphrase McKittrick and Root, "Diabetics are dying today because they are living long enough to develop it". Aschoff gives as his opinion that obesity with its consequent vascular strain and increased blood lipoids, notably cholesterol, encourages arteriosclerosis.

No doubt the treatment and use of insulin in diabetes will tend to reduce and limit arteriosclerosis. Although still too early to state definitely the effect of insulin on diabetes there is to date plenty of evidence of regeneration of the pancreas, and also on arteriosclerosis to believe that it may be at least held in check.

From the surgical standpoint, in diabetes we have to deal with 2 types of cases: first, surgical diseases which are not due directly to a preëxisting diabetic condition; and secondly, surgical conditions which are directly due to preëxisting diabetes. We find in the first class such disorders as would belong to the middle and advanced years of life. In our second class we have to deal with lowered resistance due to infection and arteriosclerosis, and dealing with these cases we must ever keep in mind the importance of focal infection.

Surgical diseases which the surgeon most commonly meets with are appendicitis, gall-bladder disease, hernia, duodenal and peptic ulcers, urinary tract disorders involving the prostate, carcinoma and thyroid dysfunctions. It is perhaps well to review some of these conditions in their relation to diabetes. We must bear in mind that symptoms in the diabetic may be masked, especially as far as pain goes, because of the sensation dulling due to acidosis.

Appendicitis may simulate coma, but in coma the skin is always dry and there is generally an unusual respiration; then also the history will help us.

Gall-bladder infection, with or without stones, is perhaps one of the most important surgical conditions associated with diabetes,

and because of the marked improvement in such patients after operation, Joslin says "gall-stone diabetes is the desirable diabetes". Because of the relation of gall-bladder and pancreas there nearly always follows an improvement in the diabetic condition after the gall-bladder disease has been cleared up surgically.

Duodenal ulcer, like appendicitis, may be confused with coma but here again the history will be a great help.

Thyroid disease plays an important part in the diabetic as the increased metabolism of hyperthyroidism is exceedingly harmful and may easily result in coma. The glycosuria of a thyroid may confuse us but the blood sugar content will clear the picture.

In our second class of surgical patients, those that are due to a preëxisting diabetes, we have a wide variety beginning with furuncles and extending to sepsis and gangrene. Any diabetes in the presence of infection is much more difficult to control and as the tissues of the diabetic are more susceptible to infection every care should be taken to drain promptly. Often a phlegmon is the first indication of an untreated diabetes and may be soon followed by gangrene. The tissues involved are often deeper than we would at first suspect and the temptation may be such as to treat the infection lightly or with a casual incision. One of the most frequent, distressing and grave infections of the diabetic is that of carbuncle. Sloughs are slow to separate, healing is laborious, acidosis hard to control and toxemia rampant. In these cases it is greatly to the advantage of the patient to excise the whole area; the crucial incision leaves a large amount of slough which is slow in being thrown out and this greatly inhibits the diabetic control.

Perhaps the most common complication the diabetic surgeon has to deal with is cellulitis. This takes all the thought, care and judgment that can be given as it so often ends in loss of limb or even loss of life. A blister, simple as it may seem, an abrasion, an old callus or even a traumatic wound may be the beginning of a severe cellular infection. The infection generally spreads quickly and treat-

ment will depend on the type and extent of the infection. If superficial layers only are involved the slough may be cut away and granulations stimulated with boric ointment; if circulation is poor, however, the excellent exercises of Buerger will help. If deeper tissues are involved prompt incision and drainage must be instituted and incision made to preserve the circulation as much as possible. If toes are involved it is often necessary to amputate one or more, bearing in mind constantly the circulation of the limb. The foot should always be examined in a good light both in the elevated and dependent positions, the dorsalis pedis pulse must be palpated, and x-rays will aid us as to showing the extent of an existing arteriosclerosis as well as any possible bone involvement.

If the infection is found to be spreading and the deeper tissues become more involved, accompanied by an extending lymphangitis, the question of amputation arises. Naturally, the point of selection must be determined and this will be influenced not only by pulsation of the dorsalis pedis, rapidity of spreading infection, and febrile reaction, but also by the age of the patient. No set rules can be laid down but it is far better to amputate high, in the region of the thigh, than to perform a low amputation and find one has to go higher later on.

Gangrene is the result of arteriosclerosis and they must necessarily be found together. There are 2 types, dry, the less common, moist the more common, but both are due to impaired circulation and appear earlier in the nontreated diabetic than in the senile or arteriosclerotic type of patient without diabetes. According to Dean Lewis, the average age of the diabetic gangrene patient is 54 as against 66 years in the arteriosclerotic or senile patient.

The Roentgen ray is extremely useful in demonstrating arteriosclerosis and should be used to determine the extent of sclerosis prior to amputation. As in a spreading infection of the cellular tissues, so in gangrene the question of amputation must be decided upon and also the proper site of an amputation. Again, no definite rules may be laid

down but certain factors must be weighed in each given case; age, economic condition of the patient, presence or absence of the dorsalis pedis pulse, change of color of the limb in both the horizontal and dependant positions, extent of the diabetic damage, amount of glycogen control and the amount of pain the patient is having in the affected limb. All these must be considered prior to amputation. Brooke has treated 5 cases of diabetic gangrene by ligation of the femoral before amputation. His results were fairly satisfactory, being able to amputate by Syme's operation at the foot and securing primary wound healing; however, the results have not been brilliant in diabetic gangrene with endarteritis obliterans present.

The choice of a site for operation generally lies among 4 places—below the knee, at junction of the upper and lower two-thirds of the leg, at the knee, or through the thigh. Root and McKittrick greatly favor the Gritti-Stokes operation. It has many excellent points in its favor, as it gives an excellent stump for weight carrying but its disadvantages are that it is not safe in the presence of infection and that it takes a good deal of time to perform. Eliason and Wright, Dean Lewis and White seem to prefer lower leg or midthigh levels. In younger patients, where the popliteal circulation is present and there is little or no lymphangitis, the Stephan Smith amputation serves admirably, as it covers the bone with plenty of muscle and fascia and will give an excellent stump.

The anteroposterior flap operation is nearly always doomed to failure and there is always a pull on the anterior flap which tends toward necrosis and infection, thereby breaking down an otherwise successful amputation. This can be overcome somewhat by a posterior splint but it is not always easy to keep this in place for a restless patient.

Thigh operations are quickly and easily performed, there is comparatively little loss of blood, very little shock and the healing is generally excellent. This should be the operation of choice in patients over 45 years of age. Where marked infection is present it is good practice to ligate the femoral separately

in Scarpa's triangle and leave the stump open, packing it lightly with gauze.

In preparing a patient for operation we have two types to deal with. First, the patient with an uncontrolled diabetes, who needs an immediate operation, and secondly the patient whose operation is not imperative and time may be given to the sugar control. It is at this point that the internist and surgeon must work together for neither can do without the other.

Nearly all hospitals today have ways and means of estimating the blood chemistry of patients and this is especially important where the diabetic is concerned, as the control of these patients depends so much on blood sugar and carbon dioxid analysis. However, there are yet many hospitals that are not so equipped and the surgical diabetic is not always in a position to choose the favorable hospitals, so it is necessary to have a rational method of controlling all patients in all places.

The first working principle in preparation of the surgical diabetic is the storage of glycogen in the liver, which is so essential. To paraphrase Joslin, "With glycogen in the liver he is a mild diabetic, without it he becomes severe, the liver fills with fat and acidosis appears," and further, "Store glycogen in the diabetic's liver by giving him carbohydrates within 3 hours of his operation and as soon as possible after operation. If there is a chance of its not being retained insure its retention and utilization with insulin."

The patient who has an uncontrolled diabetes and who needs an immediate operation must be brought under control in the quickest possible manner. First, if acidosis is present water must be given by mouth, rectum, hypodermically or intravenously. Carbohydrates, fats and proteins must also be given. Glucose, 10%, by rectum, orange juice by mouth.

If possible all sugar and acetone excretions should be carefully overcome before operation. Glycogen may be put into the body by use of oatmeal gruel, orange juice, toast, tea without sugar but with milk.

Ohler gives the following useful rules.

Test urine for sugar and diacetic acid and give insulin accordingly. Before operation introduce carbohydrate by some means, either glucose by rectum or intravenously, 30 to 50 gm., and about 10 units of insulin.

A safe and conservative rule for operation is as follows: Control blood sugar to a point between 80 and 150 mgm. per 100 c.c., and the blood should be free from acetone. Immediately prior to operation a blood specimen should be taken for sugar, CO₂, acetone and bicarbonate determination. Insulin is given at this time, the dose varying from 10 to 20 units; the smaller dose employed in under-nourished subjects while for the robust and well-nourished patient the larger dose is given. Before leaving the operating room 30 or 40 gm. glucose should be given intravenously and about 20 or 30 units of insulin as soon as the patient is returned to the ward or even before leaving the operating room.

Where more time can be given to preparation of the patient prior to operation it is necessary to render the patient's urine sugar-free and a blood sugar between 80 and 150 mgm. per 100 c.c., or at least below 250 mgm. on a diet of about 100 gm. carbohydrates and enough protein and fat.

An interesting workable plan for the use of insulin is suggested by Ohler as follows: No sugar no insulin. Green color, 5 units; yellow-green color, 10 units; brown color, 15 units; red color, 20 units; diacetic acid, 20 units. This method serves admirably for hospitals having no means of chemical analysis.

After the patient is in bed again tap water should be given by rectum, the urine should be tested, and a blood sugar estimation made within 2 hr. after the operation. Insulin may be given if necessary. During the following 2 days the urine should be tested every 2 hr., (Ohler) and from then on every 6 hr., especial attention being given to the presence of diacetic acid. Fluids should be given by mouth as soon as possible, oatmeal, milk, gruel, orange juice, tea and ginger ale. If fluids can not be taken by mouth glucose may be given by rectum or intravenously; 50 gm.

glucose should be given in the first 24 hr. (Ohler).

Anesthesia for the diabetic resolves itself into what should and what should not be used. Both chloroform and ether are dangerous anesthetics but if necessity forces their use, glycogen must be stored in the liver. Morphin and scopolamin should be used cautiously.

Spinal anesthesia is perhaps that of choice for all amputations, especially since its use is being standardized. Ethylene and nitrous oxide may be used for abdominal surgery, supplemented by a little ether if necessary.

All diabetics should be taught the dangers attendant upon their disease. So many operations could be prevented if care were taken in looking after the small infections. The need of constant foot care is important, and the avoidance of trauma, extreme heat and cold, are all important factors in the diabetic's education.

DERMATITIS PRODUCED BY COMPOUND TINCTURE OF BENZOIN

BART M. JAMES, M.D.,
Newark, N. J.

The compound tincture of benzoin, known also as Friar's balsam, not only is frequently prescribed by the practicing physician but is also a widely employed "home remedy", as was tincture of arnica 20 years ago. Its frequent use in the form of local application to the skin and mucosa, and as an inhalant in respiratory affections, makes the following case—illustrating an unusual degree of idiosyncrasy—worthy of report. No previous instance of susceptibility to this remedy has been encountered by the writer, nor by any of his colleagues with whom he has discussed the matter. Search of the literature has failed to reveal any report of similar instances insofar as concerns this particular compound.

The patient, G. H., aged 27, a bookkeeper by occupation, consulted Dr. Fred Wise, June

8, 1928, when I had the opportunity to examine the skin. He had an eruption on the face and also on the right hand which he said had been present 4 days. His past medical history was negative except for the fact that, 2 years before, he had an eruption on his face following application of compound tincture benzoin.

The patient had applied compound tincture of benzoin to an abrasion on the right hand in the morning and that night noticed an intense itching of his face, with swelling of the lips which gradually increased until within 12 hours it was difficult to open his mouth. When first seen by me there was still evidence of edema of upper and lower lips with discrete and confluent pin-head sized vesicles on the chin and the cheeks. There was also moderate scaling and erythema of both cheeks and the chin, and an extensive vesicular eruption on the dorsal surface of the right hand affecting chiefly the middle, ring and little fingers. (See Figure 1). The entire dorsum of the hand and the fingers were swollen and red in color. The vesicles were superficial and easily ruptured and were filled with a clear serum. On the lateral surfaces of the fingers some of the vesicles had ruptured and exudation with crusting had resulted. (See Figure 1).

On the palm and the palmar surface of the fingers there were also numerous, various sized, vesicles which were deeper than the ones on the dorsal surface of the hand and according to his statement they were very pruritic. The skin surrounding the eruption on the palm was erythematous, slightly edematous and felt warm to the touch. (See Figure 2). Wet dressings, Liq. Burow's 1:10, were prescribed for the hands, and naptalan 5% in ung. zinc oxide for the face.

At this time a test was made on the normal skin of the patient's arm with compound tincture of benzoin. This testing was done according to the method devised by J. Jadasohn and since used extensively by Dr. Bloch and others, and was carried out in the following manner: A small square of linen was moistened with compound tincture of benzoin and placed on the normal skin of the

arm; this was covered with gutta percha tissue held in place by adhesive plaster; when the patient returned 24 hr. later the dressing was removed and at the site of the application there was a sharply defined oval inflammatory area the size of a silver dollar with a pea-sized central bulla (See Figure 2). In the zone surrounding the bulla there were

recently described by Cumber. The balsam was used in an ointment in combination with boric acid, phenol, paraffin and petrolatum. Patch testing with all of the different ingredients was negative except for the balsam of Peru. His patient developed an acute infectious eczematoid dermatitis following use of the mixture for burns of the arm.



Fig. 1. Dermatitis produced by compound tincture of benzoin.

many tiny superficial vesicles. The patient said that within a few hours after leaving the office the site of application began to burn and it was with difficulty that he allowed the patch to remain in place.

Tinctura benzoini composita contains the following ingredients: benzoin 12 parts; aloes 2; storax 8; tolu 4, and alcohol 74. It may be assumed that any or all of these ingredients might, in a susceptible individual, cause a dermatitis. For example, a patient with an idiosyncrasy to balsam of Peru was

In making the patch tests on our patient, the proper procedure would have been to make contact skin tests with the various ingredients, in order to determine whether one or more of these substances were capable of producing a dermatitis, in the concentrations corresponding to the formula used by the patient. Unfortunately, as soon as the cause of his eruption was demonstrated the patient disappeared and could not be found again. He was told to bring the remedy which he had used on his skin and the patch test was

made from the contents of the same bottle which he had used as a "home remedy" and which was labeled compound tincture of benzoin. However, no reports of any cases are mentioned by Prosser White as having been caused by the other ingredients which make up the compound tincture of benzoin.

Involved. In the dermatitis here described still another factor or factors must be at play—for compound tincture benzoin has been employed on thousands of patients in the same manner as it was in this case, applied for the same length of time, and to the same sites without any irritation being reported as re-



Fig. 2. Dermatitis produced by compound tincture of benzoin

COMMENT

The above case illustrates the fact that caution must be exercised in diagnosing an eruption as a simple dermatitis venenata, which may be caused by any number of substances that act as primary irritants. The degree and type of irritation depend on several factors and their combinations, for example, duration of contact with the skin, concentration of the substance, the area and the type of skin in-

sulting therefrom. The fact that this patient reacted with a marked degree of irritation must be construed as an idiosyncrasy, perhaps of an allergic nature. Whether the presence of antibodies is the governing factor in an idiosyncratic reaction or whether some other as yet completely unknown mechanism is at play, must be left to future investigations to reveal; at any rate, the case here reported once more illustrates the fact that an apparently harmless substance can be the

cause of a severe reaction in the predisposed or idiosyncratic individual; indeed it is just this which is typical of an idiosyncratic reaction so well shown in cases of reaction with such harmless and physiologic substances as milk and eggs.

Substances that cause dermatitis are innumerable and depend to a great extent on individual susceptibility. The more common

in the various trades and industries, as causes of dermatitis.

In susceptible individuals, contact with an irritant may produce eczematous changes in the skin and mask the true nature and cause of the condition and it is only by careful investigation and questioning of the patients as regards their occupations, and subsequent testing with plants, chemicals and drugs with



Fig. 3. Reaction produced by application to the normal skin of compound tincture of benzoin

ones are plants like ivy, primrose, sumach, chemicals such as lacquer, proprietary hair and fur dyes, face powder, mascara, rouge and tooth paste. Drugs such as mercury, iodine, iodoform, phenol, chrysarobin and sulphur frequently are the offending substances, and reports of gangrene due to orthoform have been reported following local application of that drug. Prosser White mentions innumerable chemicals and substances used

which they come in contact, that the diagnosis can sometimes be ascertained and the cause eliminated.

This report is made for the purpose of establishing the fact that compound tincture of benzoin can cause a dermatitis in an individual who is idiosyncratic in reaction to the remedy and that the nature of the substance causing such irritation can be established by means of the patch test.

INJECTION TREATMENT OF VARICOSE VEINS

H. L. WENGER, M.D.,
Paterson, New Jersey

Recently, a wave of enthusiasm has followed introduction of a simple method of treating varicose veins, although this method is not new, since it was first attempted in about 1850 by Pravaz, inventor of the hypodermic syringe. This sudden popularity has been revived because of the introduction of new drugs; and the observation of the hardening of the veins in the treatment of lues by injecting bichlorid of mercury.

Among the drugs advocated are sodium chloride, quinin-urethan, sodium bicarb, various glucose solutions, mercuric cyanide and metaphen. This list is sufficient to show that an "ideal" solution has not been found. The ease with which these drugs are used is apt to make the physician a bit careless. The method is not free from danger, as some would have us believe.

In deciding to treat varicose veins of the leg, it is important to determine whether the particular case is one for surgery or for injection, and it is necessary to give proper consideration to the patient's history, especially as regards any recent phlebitis. It is highly essential for the physician undertaking this method to fully appreciate a few basic principles associated with the treatment of varicose veins.

A casual review of these veins in the leg recalls to us that there are superficial, deep and communicating sets of veins. The superficial and the communicating veins contain valves, while the deep veins depend upon the surrounding muscle to assist in forcing the column of blood toward the heart. There are 3 simple tests which give us fairly accurate knowledge of the condition of these 3 sets of veins. Instituting treatment without regard to these may be very detrimental to the patient.

First, we shall consider the superficial veins. Since these are usually visible to the

naked eye, it is obvious that the valves are defective. Where the vein is not visible, we use the Trendelenburg test, which consists in having the patient on her back on a table, raising the leg so that it is higher than the heart, and then suddenly lowering the leg so that it will be lower than the heart level. If varicose veins are present, the column of blood will drop down with a "thud" because there are no valves nor normal vein wall to impede the blood from falling down the collapsed tube. When the "falling down" of this column of blood cannot be seen, i. e., when the vein walls are thick or pipe-like, an impulse can be felt by the fingers.

Our next step is to consider the condition of the communicating veins or the deep veins. This is known as the "constriction test". The patient is recumbent on a table or on the edge of a bed. The leg is lifted high enough to allow all the blood to run toward the heart, thereby allowing the veins to collapse. A constriction is placed above the knee tight enough to prevent any return of blood through the superficial veins of the thigh. The leg is then lowered below the heart level and the number of minutes or seconds is determined for filling out the veins. If the veins fill in less than 1 minute, it is evident that blood is coming back through communicating or "perforating" veins, and therefore the valves in these are defective.

Patency of the deep veins is obviously still more serious. The patient is allowed to stand up, so that the veins fill. With the leg in the dependent position a constriction is applied above the knee tight enough to prevent the passage of blood from the superficial veins of the leg. The leg is then lifted so that it is higher than the level of the heart and the time is estimated for which it takes the veins to empty or collapse. If there is no blood in the superficial veins at the end of 3 minutes, one may safely assume that there is no blockage of the deep vein. If there is blockage of this deep vein, the superficial veins should not be obliterated either by operative procedure or sclerosed by injection.

In addition to the above cautions, there are certain other contraindications. Patients with

pregnancy or pelvic tumors should not be injected until a few months after these conditions have been terminated. Acute or subacute phlebitis should not be treated by this method until all evidence of inflammation has subsided, as those cases are very dangerous and may lead to embolism. Some organic diseases, such as decompensated heart or kidney conditions, should be treated more conservatively rather than by injections. Patients with arterial circulatory disturbances should obviously not be injected.

In our clinic we use sodium salicylate in 30-40% solution. In giving treatment be absolutely certain that the needle is in the lumen of the vein. Entrance of the solution into the surrounding tissue produces a very painful and slowly healing slough. The amount of solution employed varies from 2 to 6 c.c., depending upon the size and extent of the vein injected. There is no definite rule for this; it can only be determined by experience.

At the time of injection there is no pain providing the needle is in the lumen, but following injection the patient usually has a cramp-like feeling; which, however, is transient. Usually no tourniquet is employed. Care must be taken in withdrawing the needle that there is no leakage at the puncture, otherwise a painful bleb develops. The number of injections varies with extent of the disease. Following injection a paste boot is applied for support of the remaining veins.

Upon examining the treated vein a hard, cord-like structure is felt. Due to the high specific gravity of the solution which we employ the hardening extends below the site of inoculation and incidentally proves that the sclerosing substance does not enter the general circulation. Frequently the tissues surrounding the vein are somewhat indurated. This disappears subsequently. It should be emphasized that the point of entrance into the skin should be directly over that of the vein, so that if any leakage occurs, it will have a direct line of exit. The valve action employed in drawing the skin away from the entrance site of the vein is not advisable, as this may produce a slough.

This method of treating varicose veins is effectual in properly chosen cases. The results are very satisfactory to the patient; it does not require hospitalization, and there is no disfiguration.

RADIATION THERAPY IN MEDICINE

IRA I. KAPLAN, B.S., M.D.,

Director Division of Cancer, Department of City Hospitals; Attending Radiation Therapist, Bellevue Hospital,

New York City

With discovery of the Roentgen rays and radium, in the latter part of the nineteenth century, there were added to our means of combating both benign and malignant diseases 2 very potent and effective weapons. Unfortunately, the early users of radiation therapy knew little of the potential character of these new therapeutic agents, and their enthusiasm for radiation soon cooled by the unfortunate sequels and bad results which followed its use. Since then both the physical and biologic properties of x-rays and radium rays have been more closely studied and radiation has become a science more especially used by some few trained men, and we have begun to find it more and more useful in the treatment of disease. In fact, in some conditions radiation today is considered the only form of treatment which should be used; as for instance in Hodgkin's disease, leukemias, sarcomas and carcinomas of the cervix uteri.

Radiation may be used alone or in conjunction with surgery. In certain conditions it is a necessary adjunct to surgery in order to effect a cure. Radiation is not a general panacea for all diseases and conditions nor should it be used by those untrained or unskilled in its use. Due to its intrinsic potential qualities for doing harm, which may become manifest after long periods of time, it is a very dangerous form of therapy for the uninitiated to attempt.

The radiation therapist must be a clinician, skilled in his own special work yet fully appreciative of the ability of others. He must

respect, and should have the respect of, the men with whom he associates and be willing to coöperate with them for the best interests of his patient. Treatment for each case is best decided in consultation and study with the clinician, the surgeon, the pathologist and the specialist of the disease under consideration. While histologic study of a lesion is not the absolutely deciding point in the question of procedure in any given case, and one cannot with certainty prognosticate from the microscopic picture, yet such an examination gives the radiation specialist a helpful idea as to the type lesion he has to deal with, and through his experience a basis on which to plan his treatment. We have found that biopsies, when properly performed, are never detrimental to the patient.

There are no set formulas or standards by which all patients can be treated alike. No 2 cases are identical, for no 2 seemingly alike lesions are ever the same. We do have, however, certain methods of procedure which through experience and training we have learned to follow in care of the cases referred to us. The problem of whether to use x-rays or radium, alone or in combination, or together with other forms of medical or surgical therapy, depends upon the findings of the examination in each individual case. Each must be studied for itself and a plan of treatment decided upon in accordance with the evidence elicited from this examination, for we know by experience that certain lesions react better to one form of radiation than to another.

Radiation is applicable to a great many conditions, in some as the treatment of choice, and in others as the only form of treatment capable of results. Both benign and malignant lesions are treated, including: Skin lesions, such as acne, eczema, psoriasis, pruritis, ringworm, sycosis, moles, keloids, warts and corns. Inflammatory conditions such as carbuncles, furunculosis, salpingitis, arthritis. New growths, like hemangiomas, rodent ulcers and malignancies. Benign and malignant adenitis, parotid tumors, benign and malignant lesions of the nose, throat and mouth, lesions of the lip, malignancy of the breast, gastro-intestinal and genito-urinary systems.

Radiation is the preferred treatment for malignancy of the cervix, sarcoma of the lymphatic and bony systems, Hodgkin's disease and leukemias. Tuberculous lesions, adenitis and peritonitis respond well to x-rays. Radiation is indicated in thyroid conditions, and is the treatment of choice for enlarged thymus. It is also the best treatment for metastatic lesions throughout the body, wherever situated. For brain tumors and certain neurologic conditions, and as an analgesic, it works wonders in some cases.

In conclusion, radiation when properly administered, is a form of therapy applicable in the care of many lesions, the cure of some, and as palliation in others. It must be carried out by one who is properly trained in this specialty and is also a clinician, working in association with the physician, the surgeon and the pathologist.

GET IT DONE

It isn't the job we intended to do
Or the labor we've just begun,
That puts us right on the balance sheet,
It's the work we have really done.

Our credit is built upon things we do,
Our debit on things we shirk,
The man who totals the biggest plus
Is the man who completes his work.

Good intentions do not pay our bills,
It is easy enough to plan,
To wish is the play of an office boy,
To do is the work of a man.

—*The Kalends.*

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HENRY C. BARKHORN, M.D., Chairman, 45 Johnson Avenue, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

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ATLANTIC CITY CONVENTION

The 164th Annual Meeting of the Medical Society of New Jersey has passed into history along with its predecessors and, like each of the others in turn, has recorded the progressive advance of this ancient but still active organization. Indeed, the activities of the society steadily increase in number and vigor. The reports submitted by officers and employees were all of one tenor in that they spoke of excellent work accomplished and offered suggestions for extension of effort during the coming year. These reports will shortly be published in the Annual Transactions and will supply you with interesting summer reading matter.

The Program for Scientific and for General Sessions was this year unusually attractive. The addresses on economic problems, by Drs. Hall, of West Virginia, and McBrayer, of North Carolina, attracted an attentive audience. That a lively discussion was not evoked can be attributed only to the fact that the essayists left little or nothing unsaid. They both were convincing in their arguments, and delivered their talks in fascinating style. The special session on school health problems was also a marked success. Such opportunities to discuss medical economics and the points of contact between medicine and state health and educational

boards should be given more frequently, and we hope this year's experiment will lead the program committee to provide similar events for the future. Of special interest was the session devoted to papers by the directors of the State Board of Health and of the Board of Institutions and Agencies. Many of us know a deal more today than we did previously about the work and the efforts of those officers, and about what should be our relation to them, as practicing physicians.

Dr. Fishbein's talk to the House of Delegates was fine, but his address Thursday evening on "Fads and Quackery in Medicine" was of itself worth all it cost any member to travel from any part of the state to attend the convention. Thorough master of his subject, Fishbein is also an orator. His rapid-fire delivery excels that of Floyd Gibbons, and his constant flow of wit is incomparable.

We have emphasized the importance of messages delivered by our invited guests, and the discussion of topics related to the economic aspect of medicine, but that does not mean there was any deficiency of science. In the general session and in each of the sections there were papers of the highest scientific character and of greatest practical value, some emanating from our own membership and some given by invited guests. All this will appear in the Journal during coming months.

Collateral Reading

ON CENSORSHIP

(By the Shop Philosopher, Williams and Wilkins Co.)

Nothing so roils the calm and placidity of my temperament (which is, I may say, unusually inturbulent) as the concept and more particularly the forceful application of censorship. And this, whether the censorship be of literature, art, drama, habits, conduct or morals; again, whether it be applied to those things I am fond of doing or to those which I should never dream of doing were it not for the censorship. Censorship, if I may be forgiven for saying so, invariably leads to incensorship.

Wherefore I rejoice and am exceedingly glad to discover that recent legislation addressed to the censoring of obscene and insurrectionary books sought to be imported to this land of the free crank-case service, leaves me cool and unemotional. It appears to be evidence that I approach the serenity of the Stoics, that I can view the antics of mankind with that superb detachment which marks those who have achieved the truly philosophic outlook.

But I may be congratulating myself too soon. This equability may take its rise from perplexity as to how Mr. Cutting ever got into the Senate and how he found as much support there for his views as he did. He was able to change the censor from the postal department to the courts—no small achievement. Still a goodly censorship remains, and I am not altogether sure that even the learned judges are able to discriminate between pornography and literature, great as the rift is between them. But it will be anyhow better than Reed Smoot.

Or again, the failure of my choler to arise per schedule may derive from the notion that the censorship advocates are no more than doing the right thing by the policies of the Republican party, and you can't hate 'em for that. I mean to say that smut is one of our leading 100% American industries, and why should we suffer competition with a cheap foreign article?

There is, of course, a great gulf fixed between allusions to sex as found in the classics and the pornography you see on newsstands. This difference is as wide as from heaven to hades to anyone who has even meager appreciations of literary excellence, but it is entirely inexplicable to persons with no cultural acquaintance—the sort of person who is quite unable, for instance, to note the

difference between a nude and a naked prostitute. To such persons, the sex-smearing to which certain widely distributed periodicals are dedicated and of which such generous specimens appear in our undergraduate collegiate magazines, is quite in the same class with literary allusions to sex which have a definite artistic relation and purpose. The latter will appear in an even worse light, since their purpose and relation are wholly incomprehensible, while the former is readily to be understood—something one can fatuously grin and fatly smack the lips over.

Since this is so it will be clear to those with mental vigor adequate to the following of the course of this rigid dialectic, that the foreign literary endeavor will appear as a competitor of American smut; something consequently to be barred; and since a tariff is a difficult matter to arrange in such a circumstance and a censorship relatively simple—well, there you have it.

A consideration of an analogous sort applies to the censorship of insurrectionary books. To be sure there is no organized publication of books and journals in this country which stimulate the desire to overthrow the government. But surely it is not difficult to see that the Congress regards such stimulation as its own especial prerogative. Why should the Congress permit outsiders to foment a yearning to garotte the government, when the Congress itself is so adept at fomenting such yearning? With the power to stifle competition in its own specialty, it would be all but inhuman to ask the Congress to refrain from the exercise of that power.

So this latest excursion into censorship has solid and sound reasons behind it. It cannot be viewed as mere malicious tyranny. It is not censorship *per se*, so to speak, but censorship merely as the most convenient means to a protectionist end.

But though we may condone in this instance, it does not follow that all censorship is dismissed with an honorable discharge. And perhaps the worst phase of the matter is that many people view censorship as a virtue; many more look upon it as no more than a mild misdemeanor; relatively few have the perspicacity to see in it a social disease of the most malignant sort.

The amazing thing is that so many people fail to observe that censorship is powerless to do what it ostensibly sets out to do. Let us suppose that a censorship of "obscenity" could be so successful as absolutely to bar from the printed word, from drama, from movies, all allusion, decent or indecent, to sex. Does anyone in his senses suppose that thereupon "our young people" would know

nothing about and never contemplate sex? Does any one in his senses, in other words, suppose that the "stimulation" talked about has any real potency as compared with the primal urge implanted through a million generations of ancestral inheritance, inherited indeed from the original blob of protoplasm? The addition of the artificial stimulation is indeed no more effective than another shovelful of sand in the Mojave desert is in making the Mojave sandier. As well suppose that the mention of foodstuffs leads on to gluttony and a deletion of all mention to a state in which we shall hunger no more neither thirst any more.

It is unnecessary to say that I do not make a practice of reading pornography. No one with sense enough to frame even such feeble ideas as I am capable of would do so. I regard the specimens that have been thrust upon me as utterly putrid. Nevertheless, I would not stop the flow of it if I could. Others evidently do take pleasure in it, and what they take pleasure in is clearly none of my business. They do not compel me to read it.

The pernicious character of censorship is that it is an imposition, by force, of the notions of what is correct in private behavior of a more powerful group on a less powerful. And this is degradation. If it is reasonable to deny to certain persons their pornography, it is reasonable to deny to others their sacred scriptures. Soviet Russia has a censorship of sorts against the church and Christian America gets up on its hind legs and barks, meanwhile howling for a censorship on Soviet Russia's notions of the marital state. You can't bore logic into that situation with a meat auger.

No one ever wished for a censorship, which I define in its usual meaning of a custodianship over the private behavior of persons. We have censorships only because people wish to impose them on others. It amazes me that persons should be so stupid as to fail to see where this leads. If Group A is strong enough to use the arm of government to say to Group B, "You shall not do or read or speak or listen to X", then Group B coming to power has the right to say to Group A, "You shall not do Y". The A's fail completely to understand that Y is just as hateful to the B's as X is to the A's. This is because, to the A's Y is "righteousness" and X is "sinfulness". Consequently the destruction of X is the "Lord's work" whereas the destruction of Y is "persecution". This is justification of a course of action or of thinking by epithet.

Such a practice is far more putrid than pornography, and unlike pornography it is exceedingly dangerous. Especially when we place in the hands of government as such any custodianship over private lives, we do a vicious thing. Vicious, if personal freedom is truly an end to be sought, for every such custodianship is a step toward slavery. Clearly the guardianship of private morals is none of the government's business, none of society's business. It is a rum circumstance that many do not realize that "the state" and "society" are figments of the imagination. They do not exist. And when even for the alleged good of "the state" or of "society" the power to inquire into and regulate the private conduct of persons is usurped, it amounts to nothing except that we pass to one set of persons (who are of course "right") the power to correct the "wrong" lives of others. And this is not merely tyranny; it is a labyrinth of statecraft from which there is no rescue so long as there remains a shred of feeling that freedom is good.

Some of those who favor censorships of various sorts have come to see this, and recently I read a pronouncement of the astounding doctrine that liberty is not an end in itself, merely a means to an end! What end was not made clear. One supposes that it is meant that the person should be free to act for the aggrandizement and greater glory of his superiors. "Exceedingly dangerous" I have said. The mere fact of the formulation of such a doctrine justifies the language. That doctrine has been held in solution by many for a long time. Now it is crystallized. Let it now be spread abroad on the copy books of the land and be thoroughly drilled into the public semi-consciousness and a fine highway will be paved for the inculcation of any monstrous stupidity, any ignorant superstition which the future powers in the saddle may wish to fasten upon the minds of men.

I beg the reader, if any, not to conclude that I am opposed to governmental maintenance of order, which is a proper and legitimate exercise of government. I favor indeed a strong governmental arm to maintain the public order. But what I do in privacy, so long as I do not infringe the rights of others, is no more the concern of the policeman, or the judge, or the legislature, or the president than it is the concern of the corner grocer in Muscatine, Iowa. Bluntly it is not the business of government, in any sense whatever, to endeavor to make me pure or conscientious or fastidious or kindly, or to inculcate or attempt to inculcate any virtue, or suppress or

attempt to suppress any vice in me. For even the president to tell me I'm naughty and mustn't do, is the same unqualified impertinence as if the grocer tells me; and the mere fact that the president may utilize powers given him by a legislature and allege that he acts in the name of the "state" subtracts nothing from the impertinence, but merely serves to make it more intolerable because tyrannical and irredressible. We stand in proper horror of judicial murder, of execution without impartial trial under laws which protect the individual as well as society, but seem not to have the sense to resent judicial impudence. If we did, the Congress would no more dream of debating any censorship bill than it would dream of debating the prohibition of boiled shirts.

I am willing to make a partial surrender of my personal sovereignty for the sake of public order, precious as that sovereignty is. But I am disposed to yield not one millimeter beyond what is absolutely necessary; and certainly not so much as a millimicron to the vulgar zeal of those who seem hell-bent on striking my soul into the same dismal pattern as that of their own.

And I hope, I pray, I feel, I believe, by golly *I know*, there are a dickens of a lot of other folks who feel the same way.

Medical Ethics

SOME CAUSES OF PROFESSIONAL UNREST

JOHN HAMMOND BRADSHAW, M.D., F.A.C.S.,
Orange, New Jersey

The following interesting quotation was recently sent to the writer by one of that large (but valuable) class whom we doctors like to call the "laity". It is written by that veteran in our own ranks, Henry C. Coe, M.D., of New York City, and was published in the New York Medical Week:

"One is conscious of a general state of unrest in medical circles—personal, financial and ethical. Fee splitting, commissions, 'rebates'! Why do we wash our dirty linen in public and give the laity the impression that our old ideals are no longer cherished? The new move to take 'the man (and woman) on

the street' into our confidence has proved to be a sword that cuts both ways. I hear on every side complaints about hospital trustees and their injustice to their medical staffs, who have served them long and faithfully, without money and without price, only to be turned out into the cold world without even thanks. My brethren, these things ought not to be. As I have always contended, the solution is a simple one, viz:

(1) When an attending physician or surgeon resigns or becomes a consultant, it is his clear duty to insist that his faithful and efficient understudy should succeed him, and not an outsider.

(2) Every board of trustees should include 2 or more members of the attending staff of doctors. I recall with pleasure the old days in the Memorial Hospital, where I served on the board for 25 years with such men as Cleveland, Bull and Coley, how we made it our business to see that justice was done to every nurse, intern and member of the assistant staff, as well as to the attending surgeons and consultants. Why not try it again? Are we afraid of the laity?"

Having served on the staff of a General Hospital as intern, attending and consultant, for just about 50 years, your humble servant thinks he has enough background to express a modest opinion. In the first place, not only should 2 or more of the staff be members of the Trustees or Governing Board of every hospital, but at least 1 of that committee should be a *young man* and a member of the Junior Staff. It is only fair that the hardest working members of the staff and those who give so freely, "without money and without price", of their time and strength should have righteous representation on the Board.

I fail to admit that we are afraid of the laity. There is one matter that almost every member of a hospital staff is knowingly or unknowingly conscious of. One member of that staff is the dominant factor in not only the hospital management but often holds in the hollow of his hand the power of advancement of the younger men. If this unrighteous power is not vested in an individual, it is wielded by a clique, which is often controlled by one who, by virtue of his great professional ability, perhaps unconsciously, holds unusual power. True, this may be sometimes for the best interests of the hospital, but does it not sometimes work an injustice to the medical man?

Esthetics

ANNUAL WALT WHITMAN DINNER

New Jersey cannot claim this great poet as a native son but she does take pride in having held him as a distinguished citizen for many years and having been the chosen site of his residence in the last years of his life. So it is that here his birthday is celebrated annually, and that for the past 4 years this celebration has taken the form of a "dinner". Generally held at Camden, the festive occasion was this year arranged for at the Bellevue-Stratford Hotel in Philadelphia. Whether because of this removal from Camden's sacred precincts, or because the date was moved up to May 1 instead of his proper natal day of May 31, the attendance fell markedly below that of last year.

Dr. Alexander Macalister, of Camden, who was Whitman's close friend and personal physician, presided and opened with the following remarks:

"When Alfred Tennyson wrote the line—'The thoughts of men are widened with the process of the suns'—he had not met Walt Whitman, but later, when these two had met, Tennyson magnificently conceded Whitman an important place in the widening process. Tennyson, wealthy, and living in aristocratic ease, hailed Whitman, pitifully poor man in all but soul, as a great poet. Had Whitman at the outset of his career sought the influence of America's wealthy patrons of literature, he might, long ago, have been pointed out as a great star in our literary firmament, and today be practically forgotten. But Whitman, in his native sincerity, was more concerned about *his own thought* than about what the wealthy and influential might think of him. So, his expressed intention of abiding by nature's process, and laying his soul open, as a reflection of the common man, has brought its reward in the world-wide recognition of his work as a constantly-widening, and never-ending factor, in the world's progress. Because he boldly proclaimed what most men dimly feel to be true, he has become everybody's poet, and not merely a mouthpiece for the literary faddist.

More than a hundred books about Whitman have been written in the last few years. Several more are in preparation at the present time. Dr. Clara Barras is writing one on the comradeship of Whitman and John Burroughs; Dr. Will S. Monroe is working on a scholarly biography; Dr. Harold Blodgett is preparing a book on Whitman's influence in England; Clifton S. Furness, of Harvard, is writing a new Life of Whitman;

Ruth Pressley is working on Whitman's Debt to Emerson; Saunders & Furness will bring out a new Whitman Bibliography; and the late Professor Harrison had contemplated an elaborate work on the Sources of Whitman's Literary Inspiration. Only Professor Harrison's chapter on Whitman and Shakespeare had been finished at the time of his death. The literary executors of the late Edward Carpenter will produce a memorial volume on Carpenter, and devote much of it to Whitman's formative influence on Carpenter's life and philosophy.

I might well introduce the speaker of the evening as one of America's most brilliant preachers, as one of those who are seeking to take the burden of theology from religion, and restore to religion its friendliness for, and love of, man, which was Whitman's great message to the world. But, it is not as a preacher that he comes to us, but as a friend and interpreter of a great poet of the soul and the body. I need not introduce him as a master of eloquence, which is itself, a sort of poetry. You know he is a master of the spoken word. He comes to us tonight neither as orator nor preacher, but as a poet to join us in a tribute to, *the* poet of the western world, as a poet who has felt the power and inspiration of Walt Whitman, as a poet who has looked down Democratic Vistas, and has seen at the end of them the beauty and tenderness of the human heart.

So, it is not Reverend Doctor Robert Norwood, Rector of St. Bartholomew's in New York, that I introduce this evening, nor yet the man who has made thousands of friends in this city and New York, but rather *Robert Norwood*, author of 'Bill Boram' and lover of Walt Whitman."

Dr. Norwood's address, very interesting and entertaining, was followed by a reading from Whitman's poetry by Mr. Roy Helton, himself a poet of note, and by recitation of a sonnet to Whitman by Eric F. Menke, of Swarthmore.

The dinner menu card carried, as a quotation from the great poet whose memory was being honored:

"I exist as I am, that is enough,

If no other in the world be aware I sit content,

And if each and all be aware I sit content.

One world is aware and by far the largest to me, and that is myself,

And whether I come to my own today or in ten thousand or ten million years,

I can cheerfully take it now, or with equal cheerfulness I can wait.

My foothold is tenon'd and mortis'd in
granite,
I laugh at what you call dissolution,
And I know the amplitude of time."

WALT WHITMAN from
"Song of Myself"

Economics

THE HIGH COST OF MEDICAL CARE

(Editorial, Indiana Med. Jour., Jan. 1929.)

In discussing the subject of the high cost of medical care there are altogether too many people who seem to think that the principal part of the expense of illness is due to large medical and surgical fees. The truth of the matter is that if the character of the services and the return on the actual investment is considered the medical man usually is poorly paid. It must be remembered that the physician's stock in trade is his knowledge and training, which has been secured at not only a very large money expense but at the expense of 5-6 years of time during which nothing was earned. Medical and surgical services possess a value not to be measured by dollars and cents, though as a working basis some fairly definite schedule of fees must be followed. There was a time when the physician's fees were not considered as being a matter to be dealt with in a critical way, and the fees then were only a little less on the average than they are at the present time, notwithstanding the very marked change in the economic position of nearly every person following other vocations.

The fact of the matter is that there are other factors that enter into the high cost of medical care and not the least of which is the present tendency to make all sickness of any consequence a hospital proposition. This change in the desire on the part of the public to have better and more comprehensive attention than can be secured in the home is encouraged and stimulated by the attitude of the physicians who like, for personal reasons, to have work centered in hospitals, not alone because of the supposed better attention received but because of the convenience to the physicians themselves. This hospitalization is an expensive luxury in many cases, as illustrated by an incident, not unusual, that has just come to our attention. A man had a bruise in the region of the clavicle, at first

thought to be insignificant, but which later developed into a large abscess. The physician consulted advised him to go to the hospital. The treatment consisted of a free incision, resulting in prompt cure. The patient was in the hospital 1 week, and received a bill from the hospital for \$97, which included room, board, operating room expenses, special nurse for 1 day, x-rays, laboratory, dressings and drugs. The physician's bill was \$20, which included lancing the abscess and a couple of dressings.

The questions arise, "Why did not the attending physician encourage the patient to remain at home? Was it necessary to have the x-rays, laboratory examination, operation under general anesthetic, and a special nurse for 24 hours? Furthermore, why do hospitals charge for dressings, drugs, blood count, and even telephone calls?" In the case cited, the physician's fee was modest, but in reality wasn't he responsible for a large expense, much or all of which may have been wholly unjustifiable? Perhaps the attending physician sent the patient to the hospital as a matter of convenience to himself, and it may be that the hospital, following a rigid rule, and in the interest of protection of the hospital as well as the patient, was responsible for the extras. In the final analysis, isn't it true that we are subjecting altogether too many patients to hospitalization who could be given efficient and satisfactory service at home at modest expense, and isn't it equally true that hospitals, through a mistaken notion of efficiency, are subjecting patients to too much service which goes under the head of extras for which the patient has to pay altogether too much? In the discussion of the high cost of medical care all of these various factors must be considered, and it certainly is worthy of thought that much of the expense can be cut down in a very large proportion of cases without diminishing efficiency and without cutting down the compensation received by the physician, which already is low enough. Why not cut out a good many of the frills, and why not quit considering some of the routine services as extras for which an extra charge can be exacted from the patient? The patient should have everything that is necessary for the proper consideration of his ailments, whether in the way of diagnosis, treatment or care, and the well-trained physician should know what is necessary, but why should he arbitrarily tack on a lot of superfluous service and expense?

Lighthouse Observations

RELIABILITY OF ERGOT PREPARATIONS

For 3 years past there has been much confusion regarding the reliability of ergot preparations offered to the profession, growing in the main out of a business controversy, and many physicians feel today that they scarcely dare prescribe the fluid extract in their obstetric work. It is reassuring to learn from the A. M. A. Council on Pharmacy and Chemistry the situation has been improved and that there is a dependable guide to the use of ergot and its several marketed preparations. We quote an editorial from the *Journal of the American Medical Association* (94:1504, May 10, 1930) in explanation:

THE ACTIVITY OF OFFICIAL PREPARATIONS OF ERGOT

The marked complexity and notable instability of preparations of ergot have baffled chemists as long as they have been interested in this important drug. In extracts from ergot there have been found oils, plant acids, resins, coloring matter, carbohydrates, proteins, amino-acids, salts, alkaloids and amines. Each investigator working with this complex mixture has isolated and named the constituent which he held to be the carrier of the pharmacologic activity characteristic of ergot. One of the most important advances came with the isolation of the alkaloid ergotoxin by Barger and Carr in 1906. This substance has proved to be identical with the hydro-ergotin of Kraft, isolated the same year. The amount of this alkaloid present, however, did not account for all the activity shown by ergot preparations. Inspired perhaps by the then recent studies of epinephrin and similar amines, further investigations showed the presence of a number of other active substances, especially histamin, tyramin and acetylcholin. Here the matter rested until the isolation of a second active alkaloid by Stoll in 1918. To this alkaloid was given the name ergotamin.

Recently the conviction has grown among pharmacologists both in this country and abroad that, while undoubtedly histamin and tyramin play a part in the pharmacologic responses to ergot under laboratory conditions, they have little or nothing to do with the action of ergot as used clinically. The reports, chiefly from Europe, of clinical experience with ergot substitutes, usually a mixture of histamin and tyramin, seem to confirm this view. It is generally held at present that the alkaloids are the important constituents. With the development of this belief has come naturally an insistence that preparations offered to the medical profession should contain them. In 1929 the Council on Pharmacy and Chemistry dropped from New and Nonofficial Remedies those preparations of ergot which, from their method of manufacture, were not likely to contain, or were not shown by proper methods of assay to contain, important amounts of alkaloids. It is of interest in this connection to note that, of the various preparations of ergot which are official in the pharmacopeias of the world, only those of the United States, Dutch, and, since 1926, German pharmacopeias are such as could be expected from the method of manufacture to meet this requirement. Our own pharmacopeia not only prescribes an efficient method of extraction

in the preparation of the fluid extract, the only official preparation, but requires in addition that the preparation be assayed by a biologic method which determines the alkaloidal content.

Chemical methods of assay have not as yet proved feasible for determination of the strength of ergot preparations, and the use of biologic methods is therefore imperative. Of the various methods used at one time or another, only 2 groups actually measure the content of alkaloids. One of these, based on the ability of ergot to cause bluing and cyanosis in the comb and wattles of the rooster, is compulsory in the U. S. P. X. The other method, or group of methods, is based on the property of the alkaloids to reduce or reverse the response of various tissues to constant amounts of epinephrin, the so-called epinephrin-reversal method. These 2 methods have been used both to study the strength of various commercial preparations and to follow the loss of strength that occurs with the passage of time. Studies of the stability of ergot preparations have seemed to reveal to some workers a situation that is quite discouraging. Burn, of the Pharmacologic Laboratories of the Pharmaceutical Society of Great Britain, has recently made the pessimistic statement that "it may be presumed that most of the extracts used in these countries (i. e., Holland and the United States) are inert." By extracts he refers in the case of the United States to the official fluid extract.

That the picture is not so gloomy as painted may be evidenced by results obtained in several American laboratories. In 1928, Pattee and Nelson, at the University of Michigan, examined a number of ergot preparations purchased on the open market, using the official cock's-comb method and an epinephrin-reversal method of assay, and found only 1 of 5 official fluid extracts to have less than the required strength. They did, however, find most of the proprietary ergot preparations that they examined either altogether inactive or distinctly below the strength claimed for them. Recently Shübel and Straub have obtained similar results for a number of European proprietary preparations, some of which are sold in this country. Thompson, of the United States Department of Agriculture, has lately published analyses of 10 fluid extracts immediately after preparation and then after 9 months' aging. Although all of these preparations showed some deterioration, only 1 of them had fallen below the U. S. P. requirement. Swanson has made a similar series of examinations of fluid extracts kept 2 years under varying conditions of acidity. His fluid extract kept at the acidity set by the United States Pharmacopeia had lost only 20% of its activity at the end of 2 years, and fluid extracts at a slightly higher acidity had not deteriorated at all.

There is no real reason why the American physician should not continue to use with confidence fluid extracts made by reputable firms in accordance with the pharmacopeial method and shown by proper methods of assay to contain the activity required by the pharmacopeial standard. If he uses other than official preparations, he should convince himself that the nonofficial preparation used actually possesses the properties characteristic of a standard ergot preparation. If it has been accepted by the Council on Pharmacy and Chemistry for New and Nonofficial Remedies, the composition and efficiency may be depended on.

Public Relations

THE PORTER NARCOTIC BILL

(From Jour. A. M. A., May 3, 1930.)

The Chicago Tribune, after publishing an interview with several representatives of the American Medical Association concerning the attitude of the Association on the Porter antinarcotic bill, has followed with an editorial which expresses clearly and distinctly the point of view of the medical profession with regard to medical legislation. The Tribune editorial is as follows:

A LAW TO PROMOTE PAIN

Representative Stephen Porter, of Pennsylvania, has introduced a number of bills at this session of congress for the control of the traffic in narcotics. One of the bills, establishing a bureau of narcotics, has already passed the house. A companion measure would forbid even a physician to dispense narcotics unless he was licensed to do so by the federal bureau.

The creation of a bureau of narcotics we regard as a doubtful expedient. The limitation on the right of a doctor to give drugs where he believes they are indicated we regard as something more than inexpedient; it is unsound in principle and is likely to cause much needless suffering in practice.

The tendency among legislators is to vote for any measure of narcotic control that the racketeers of the uplift propose. Congressmen fear that a vote against such measures will be regarded as a vote in favor of the dope traffic. They assume from the reading of much superheated propaganda that narcotics are wholly evil and that there is no legitimate use for them. The assumptions are false. Narcotics have caused much suffering to those addicted to their use, but viewed in perspective these drugs are a blessing rather than a curse to mankind. They have blotted out pain which could scarcely have been endured otherwise. They have saved many more lives than they cost. Every medical school in the country gives careful instruction in the proper use of narcotics and every practitioner knows their habit forming character.

There is little danger in permitting doctors at least their present freedom in prescribing opiates, but there is much danger that additional red tape will mean additional human suffering which might have been relieved but for the government's interference.

DOCTORS UP ON CHARGES

(New York Times, May 9, 1930.)

The State Medical Grievance Committee at an executive session May 8, at 51 Chambers Street, New York, had before it 6 physicians against whom complaints had been made charging illegal or unethical practices.

One doctor promised the committee he would not advertise. Another agreed to leave the employ of a corporation that used his name. Another was warned to cease his practice of selling "a sure epilepsy cure".

Dr. Orrin S. Wightman, who presided, said that the committee was strongly opposed to the acceptance by physicians of rebates on prescribed articles and medications. The Medical Society of

the County of New York recently condemned the practice of rebating as "unsound and unprofessional". Dr. Harold Rypins, secretary of the committee, declared a majority of physicians in this state is opposed to rebates.

HEALTH ACTIVITIES OF PARENT-TEACHER ASSOCIATIONS IN NEW JERSEY

Mrs. William F. Little,

President of New Jersey Congress of Parents and Teachers

(From the Health Bulletin, April-May, 1930, N. J. Tuberculosis League)

"To Cure was the Voice of the Past; to prevent, the Divine whisper of Today".

The New Jersey Congress of Parents and Teachers in coöperation with the State Board of Health, the Bureau of Child Hygiene, the Pediatric Section of the New Jersey Medical Society, the Committee for the Prevention of Diphtheria and the New Jersey Tuberculosis League in its Early Diagnosis Campaign, is endeavoring to place upon the shoulders of the parents themselves their responsibility not only for the health of their own children, but for the health of all the children in the community.

Parents and teachers are urged to work so that every child may be physically and mentally sound, be prepared for worthy home membership, guided into the path of vocational effectiveness, and trained to make a wise use of leisure.

Since health is the basis for all other growth and accomplishment, there has been an endeavor to arouse the parents' attitude toward the need of well balanced food, plenty of sleep, and the inculcating of sound health habits.

Reports of school nurses, boards of health, and clinics show that undernourished children are found in every section of the state in the houses of the foreign born, the wealthy, the poor, and in those homes where strife and bickering are paramount. Milk has been furnished the children in the morning and school lunch rooms have been installed. Visiting teachers have given instruction in basic home economics and nutrition, to those from other lands, and have distributed to them pamphlets in different languages.

Not only the physical condition of the child has been involved, but the mental as well. Parents have been made to realize that the child must have a chance to "live his own life" the same as any other individual, that his judgment and self-control must be so developed that he may be able to master rather than be mastered by the complex forces of today. The parent himself must understand the value of emotional self-control, if he is to instill it into the child. Anger, fear, worry must be supplanted by cheerfulness, courage and faith in the ultimate outcome of events. With that end in view, classes in child psychology and mental hygiene have been formed. Round Table Conference held, Child Guidance Clinics encouraged. Many physicians and psychiatrists have given freely of their time, at local and county meetings. In many instances, school nurses have been provided, and their salaries paid by the Parent-Teacher Association until taken over by the Board of Education or the community. Many health and dental clinics, where necessary treatments are given for a nominal fee, or furnished

free to the children unable to pay, have been equipped.

The Summer Round-up, which is a great and glorious undertaking, and because the name has been copyrighted by the National Office, must be carried on as an activity of the local association in membership. It cannot be used or the work done by another organization. It is the most fundamental movement of the day, training parents to their responsibility for the health examination of their children from birth to maturity. Every unit should coöperate with the local health agencies in making Child Health Day a banner one in the community.

Through the efforts of the Antidiphtheria Campaign Committee, parents are being urged to protect the child from that disease by the use of toxin-antitoxin.

Health examinations for boys and girls of High School age are being stressed. There must be exercise to increase bodily vigor, but it must be adapted to one's strength. "Good sportsmanship" teaches the boy and girl to "play the game" and indirectly leads to inculcating honesty, reliability, loyalty to school, friends and community.

Ours is a great responsibility not only to see that our own children are protected but that we render service to meet the needs of every child.

SHOW DOCTORS' FEES FAIR

Data Collected From Part of State on Rural Physicians' Income

(N. Y. Times, June 25, 1930.)

Figures indicating that doctors, contrary to general belief, can make a good living in rural practice are contained in a study of income of country physicians in Northeastern New York made public today by the Albany Medical College, which shows that the average annual income is \$6600.

Sixty-five per cent of the doctors in the rural districts of 18 counties in this section of the state earn more than \$5000 annually, the study reveals; 32% have incomes above \$7500. These incomes are obtained in spite of the fact that fees in rural medical practice are in many instances from 25 to 50% less than those ordinarily charged by city physicians.

These and similar data pertaining to rural medical service in the large area served by the college have been gathered during the past year by the institution's department of regional extension of medical education, recently established with funds from the Rockefeller Foundation.

FIXED MEDICAL CHARGES

(Editorial New York Sun, Mar. 3, 1930.)

By what is known as the "private group patient plan" St. Mark's Hospital has begun an adventure which is bound to capture public attention. It is an undertaking designed "for educated patients of moderate means and for the rank and file of professional workers who do not care to be treated in public wards and who find the cost of strictly private rooms and private treatment prohibitive." It includes a system of fees and charges whereby each patient may know

in advance exactly how much his illness will cost for medical, surgical and nursing attendance, together with a fixed sum for the hospital.

The arrangement has been made possible through the agreement of 330 doctors on the attendance and courtesy staffs of St. Mark's that they will limit their fees to \$100 for each patient admitted to the hospital under this plan. This will procure for the patient whatever medical and surgical care his case may require. The hospital undertakes in each case to make a definite estimate beyond which its charges shall not go. No more than 3 patients entered under the plan will be assigned to the same room; graduate nurses working in 8-hour shifts will give constant care to them. Begun on a modest basis, it is hoped that the plan can be greatly extended in the projected new hospital building of 200 beds which will be the principal unit in St. Mark's \$5,500,000 reconstruction program.

To the citizen of small means the ordinary terrors of illness are complicated and made worse by economic dread. However ably and justifiably physicians, nurses and hospitals may defend the fees they charge, to a person in moderate circumstances those fees often represent sacrifice of the gravest character. Therefore, every layman will wish success to the plan at St. Mark's and hope that it may prove as advantageous for doctors, nurses and the hospital itself as for patients. Many obstetricians long ago adopted the practice of charging fixed fees for their services; perhaps the way will be open before many years for all other branches of medical practice to do likewise.

PROFIT IN GOOD WORKS

(New York Sun, Jan. 20, 1930.)

It is of common knowledge that physicians and surgeons do much without payment for their services. Probably there is no man or woman who has not heard of cases in which attendance, drugs and appliances were supplied to a sufferer without fee. To these individual benefactions are sometimes added the services performed free of charge in hospitals. Whether these services should be classified as charitable is a question frequently debated; Dr. Linsly R. Williams contends in the New York State Journal of Medicine that they should not be. As a member of the profession he says what a good many laymen think but are modest about uttering:

"It is a common statement of physicians that they donate their services to the poor in their hospital work. Is it really a donation?"

The physician gives his services to the hospital or outpatient department free, but if one should ask the visiting physician or surgeon of one of our larger hospitals why he gives this service, and why doesn't he resign his position if it is so burdensome to him, he will very promptly reply that the position is very valuable to him, that he keeps up his study of medicine by this means, that he sees a considerable number of younger physicians, who, as they pass out from the hospital or dispensary, call him in consultation, that the prestige of the hospital brings him new patients and that the position absorbs his interest and is a very valuable one to him and there is actually a quid pro quo in the matter which should be recognized."

In the perennial discussion of physicians' fees, compensation for nurses, hospital charges, it is interesting to observe that there are always prac-

tioners ready, even alert, to examine critically the contentions of their fellows. Periodicals devoted to the medical profession are notable for the diversity of opinions they record on matters of common interest, particularly on such subjects as the size of fees. The patient who feels he has been overcharged is not more emphatic in his declarations on the subject than a physician may be.

Communications

COMMITTEE ON COST OF MEDICAL CARE

Special Session, Washington, May 2-3

(Report furnished by Dr. A. C. Morgan,
of Philadelphia)

The following Fundamental Principles were promulgated by Hon. Ray Lyman Wilbur, M.D., Secretary of the Interior, and Chairman of the Committee, and they were heartily approved and endorsed:

- (1) *The personal relation between physician and patient must be preserved in any effective system of medical service.*

Medical service is and doubtless, by its very nature, must remain a distinctly personal service. Even in this age of standardized commodities for the table, ready-to-wear clothing, and interchangeable spare parts for all types of machines, there has been no plan suggested for the reduction of medical diagnosis and treatment to basic units which can be ordered from travelling salesmen or acquired through correspondence courses. The physician must see his patient and see him in many cases over an extended period of time if the diagnosis and treatment are to achieve the greatest possible accuracy and efficiency. There is no substitute for personal observation.

Man is not a standardized machine and each individual reacts to the conditions of life in a manner in some respects unique. In the treatment of disease, this individual variation is a factor of great significance and can receive due consideration only when the practitioner has known the patient for a considerable time and maintains a personal relation with the patient.

- (2) *The concept of medical service of the community should include a systematic and intensive use of preventive measures in private practice and effective support of preventive measures in public health work.*

The cost of adequate curative treatment is now high and may continue to increase as expensive procedures resulting from scientific progress become more widely used. Sickness, in addition, involves other personal and social costs, some of which cannot be measured in monetary terms.

The outstanding achievements in scientific medicine have been made in the preventive rather than the curative field. Knowledge now available for the control of malaria, tuberculosis, smallpox, diphtheria, pellagra, typhoid fever, hookworm disease, and goiter, if effectively applied, would make unnecessary a considerable proportion of the present expense for the cure of sickness.

- (3) *The medical service of a community should include the necessary facilities for adequate diagnosis and treatment.*

From the standpoint of effective diagnosis, many diseases, such as tuberculosis, cannot be recognized promptly in their early stages without the aid of elaborate technical equipment. From the standpoint of adequate therapy, if the best of modern technic is not immediately available, complete cures are either delayed or rendered impossible of attainment. To cite a specific illustration of the improvement of modern therapeutic procedures over those of 10 years ago, the time required for treatment of fractures of the hip and the percentage of permanent invalidity resulting from that injury have each been reduced by more than half.

We cannot be content with anything except the best possible service that modern science can provide and it is therefore imperative that modern scientific equipment for the diagnosis and treatment of disease be available to the practitioners of medicine in every community.

POST-GRADUATE WEEK OF PHYSICAL THERAPY

(From the American Congress of Physical Therapy; office at 30 N. Michigan Ave., Chicago.)

Announcement is made of "A Post-Graduate Week of Physical Therapy" in conjunction with the ninth annual scientific session of the American Congress of Physical Therapy, to be conducted September 8-12, 1930, at the New Hotel Jefferson, St. Louis, Mo. An intensive post-graduate week of physical therapy is promised. Elaborate plans have been perfected for teaching, demonstrations and clinics. The physician who is interested in physical therapeutics and who has not had any instruction in the work will find the lectures on the fundamentals a sound basic means for further study. The more experienced, on the other hand, will gain considerably from the advanced expositions on light, heat, electricity, massage and all the other physical agents utilized in practice. Every phase of physical therapy will be covered. The subjects will be general and specific and so varied as to appeal to both the general practitioner and the specialist. The preliminary program will be issued within a short time. Full information and details are contained in it.

SUMMER CLINICS OF THE CHICAGO MEDICAL SOCIETY

August 11-16, 1930

The officers of the Chicago Medical Society, together with members of the staff of Cook County Hospital, realizing the demand for post-graduate clinical work for the general practitioner, have made preparations to meet the requirements.

In the spring of 1926 the society extended an invitation to every licensed physician in Illinois to make use of the opportunity afforded for post-graduate work at Cook County Hospital under the instruction of members of its staff. The loyal support by the profession greatly encouraged the society and the staff of the Cook County Hospital to continue making available to the general practitioner the vast material of the hospital.

Following the first course our registrations have included physicians from Alabama, California, Colorado, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin and Canada.

The number who may attend the clinics is limited by the size of the amphitheatre, therefore registration in advance is necessary. Admission to the clinics will be by card only. Registration is open to all members in good standing of the American Medical Association and its component societies. A registration fee of \$10 is charged to cover expenses of organizing the clinics.

Clinics will be held simultaneously in the medical and surgical amphitheatres, except that the pediatric clinics will be held in the Children's Hospital and the demonstrations in pathology and laboratory technic will be held in the morgue.

Exhibits in fresh pathology have become an established feature in connection with the clinics. Cases will be demonstrated at each clinic. Bed-side instruction may be arranged. Evening lectures by physicians not on the hospital staff will be given in connection with courses on the heart, obstetrics, surgery, pediatrics and physiology.

FIFTEENTH ANNUAL CLINICAL SESSION OF THE AMERICAN COLLEGE OF PHYSICIANS

(Letter from E. R. Loveland, Executive Secretary)

The American College of Physicians will hold its Fifteenth Annual Clinical Session at Baltimore, Maryland, March 23-27, inclusive, 1931. The Lord Baltimore Hotel will be headquarters.

Dr. Sydney R. Miller, Baltimore, as President, will have charge of selection of the general scientific program. Dr. Maurice C. Pincoffs, of Baltimore, has been appointed by the Board of Regents as the General Chairman of the Session, and will make all local arrangements, including the making up of the program of clinics. Business details will be handled by the Executive Secretary, Mr. E. R. Loveland, from the College headquarters, 133-135 S. 36th Street, Philadelphia, Pa.

COLORADO SUMMER GRADUATE COURSE AND CONGRESS OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY

The Eighth Annual Summer Graduate Course and the Colorado Congress of Ophthalmology and Oto-Laryngology will be held in Denver this year, July 29 to August 9 inclusive. All ethical practitioners are eligible for the course and, as in the past, the class—limited to 65 members—will be divided into small sections for the demonstrations and clinics. Daily complimentary luncheons, followed by Round Table Discussions, will be continued as a popular feature. Physicians desiring to enroll are urged to send in their applications as early as possible, accompanying same with check for the fee of \$50.

Among those who will give Special Courses are:

Drs. J. S. Friedenwald, of Baltimore; J. F. Barnhill, of Indianapolis; L. W. Dean, of St. Louis; Alfred Cowan, of Philadelphia; and Lewis Fisher, of Philadelphia.

Friday, August 1, is set aside for the Congress, with presentation and discussion of special papers, followed in the afternoon by a motor trip into the Rocky Mountains and a complimentary Banquet for physicians and their families at the Mountain Home of the Motor Club of Colorado.

Applications with checks should be sent to Dr. H. L. Whitaker, Corresponding Secretary-Treasurer, Republic Bldg., Denver, Colorado, who will also take pleasure in arranging for accommodations or giving you any other information you may desire.

THE JOHN PHILLIPS MEMORIAL PRIZE

The American College of Physicians announces the John Phillips Memorial Prize of \$1500.00, to be awarded for the most meritorious contribution in Internal Medicine and sciences contributing thereto, under the following conditions:

(1) The contribution must be submitted in the form of a thesis or dissertation based upon published or unpublished original work.

(2) It must be mailed to the Executive Secretary of the American College of Physicians on or before August 31, 1930.

(3) The thesis or dissertation must be in the English language, in triplicate, in typewritten or printed form, and the work upon which it is based must have been done in whole or in part in the United States or Canada.

(4) The recipient of the prize would be expected to read the essay at the next Annual Meeting of the College, after which he would be officially presented with the prize by the President.

(5) The College reserves the right to make no award of the prize if a sufficiently meritorious piece of work has not been received.

(6) The announcement of the Prize winner will be made not later than 2 months before the Annual Meeting.

American College of Physicians, E. R. Loveland, Executive Secretary, 133-135 S. 36th Street, Philadelphia, Pa.

PLAN FOR TERMINATING THE ACTIVITIES OF THE NEW JERSEY COMMITTEE FOR THE PREVENTION OF DIPHTHERIA AND FOR ASSIGNING THEM TO APPROPRIATE AGENCIES IN THE STATE

In view of the fact that the returned ballots from members of the Executive Council of the New Jersey Committee for the Prevention of Diphtheria indicate that the members are unanimously agreed the time has come for bringing to a close the active statewide campaign for the prevention of diphtheria under the auspices of this special committee, the following method for doing this is proposed.

In its 3 years' existence, the committee has accumulated certain assets, some tangible and others, while none the less real, not so definite nor so easily assignable. It seems appropriate, however, in dissolving the organization, that a

suitable disposition of both types be made not only for the purpose of making use of those things of physical value but also of perpetuating so far as possible the activities which have been initiated by the committee and have proved of worth throughout the state. In this spirit, the following recommendations are made:

COUNTY CHAIRMEN AND THEIR COMMITTEES

The committee has developed, as a means of carrying on its work, a statewide organization composed of a group of interested and representative physicians as chairmen of units in each of the 21 counties. It would seem a needless sacrifice to allow these committees to disband without in some way making use of them in continuance of the immunization program in New Jersey. It is conceded, I believe, that the pre-school side of this problem is fundamental. If diphtheria is ever to be eliminated from this or any other state, it must be done by the protection of practically every child by the time he reaches a year of age, or soon after. Unless this job is to be done by the extension of public clinics under some auspices or other, it is obvious that it must be done in private practice in the doctor's office. To make this plan effective, it is equally obvious that education of the physician must not stop. Those already convinced of the efficacy of immunization must accept the responsibility of protecting their own clientele by becoming, so far as this disease is concerned, the health officers of their patients' families. The number of physicians who are not yet convinced of the value of these procedures is inconsiderable and can probably be disregarded. The big point appears to be the working out of practical ways among physicians themselves for applying these protective methods in their own or in group practices. This committee, therefore, definitely recommends to the State Medical Society that it formulate through the county medical societies a plan whereby they, in cooperation with the county committees established by this organization, shall combine to keep this problem constantly before the profession and, by studying methods applied in other states and large cities, work out methods in New Jersey which will enlist the active support of every open-minded physician in the state. If clinics be found necessary, let the county societies organize and man them.

The educational activities carried on by the 21 committees and the local units established by them must also be continued. These efforts must, as in the past, be actually conducted in local communities. No central state committee or other state agency can with propriety undertake to promote a local program, though it may render valuable assistance both in initiating and suggesting plans and in providing actual help. No effort, however well-meaning and useful it may be, which is carried on strictly by physicians, will meet the need. A constant stream of educational publicity must be promulgated and to that end the following is suggested:

The State Health Department is most strategically situated to stimulate local publicity efforts. Naturally, it could do more had it a larger field force, but much can be done from headquarters by suggestions in Public Health News, and more particularly by special letters on the subject which might go out at appropriate times during the year, i. e., in the early Fall, at the opening of schools;

and early in each new year in preparation for May Day or other Spring activities. The committee, therefore, recommends that this matter be brought to the attention of the State Department of Health and that it also be asked to arrange for an annual stock-taking conference at which reports will be rendered by local representatives not only of official health departments but of voluntary health agencies and other organized groups which may have taken an active part in the year's immunization efforts.

The State Department of Public Instruction is the other state agency which can most favorably influence this problem. In some districts, in cooperation with the Parent-Teachers' Association, the schools will probably be willing to assist actively in securing immunization of those preschool children not cared for in private practice. Of course, educational authorities should continue their active campaigns to keep diphtheria out of the schools. It is recommended by the committee, therefore, that the State Department of Public Instruction be encouraged to anchor, even more generally into school routine, the immunization against diphtheria and to assist other local agencies in the process of educating the public to an acceptance of these procedures for every child before it reaches a year of age.

Several counties are very thoroughly organized with local diphtheria committees. Their interest should be sustained, if possible, or if their members feel that they should be replaced, other interested persons in the community should be selected as active workers in any organization which may be set up under proper medical, official, health and educational auspices to prosecute a local campaign. It is, therefore, recommended that the county chairmen be urged to communicate with such local chairmen as they may have appointed in their respective counties, urging continued interest and activity as here suggested.

A certain amount of literature on prevention of diphtheria—pamphlets, circulars and posters—remains in the possession of the committee either at its central distribution office, 21 Walnut Street, Newark, or in some of the county headquarters. It is recommended that such of this material as carries only the name of the State Diphtheria Committee or other non-commercial organization be forwarded to the State Department of Health for such use as it may deem wise and that the balance be distributed to selected local health departments which could be expected to dispose of it advantageously.

It is estimated that between \$200 and \$300 will remain in the hands of the treasurer of the committee. It has been recommended that a summary report of the 3 years' activity of the committee be prepared, published and distributed. It is probable that this sum will make this possible but very unlikely that after it is done any funds will remain. It is, therefore, recommended that this project be carried out and that any funds which may remain be made available by the committee, through recommendation of the State Department of Health, to any local community which may request it for the purchase of toxin-antitoxin or toxoid.

It is finally recommended that when this plan

is perfected and approved, a suitable letter embodying its substance be forwarded to Governor Larson with the request that he dissolve the committee at such time and in such manner as he may elect.

F. J. OSBORNE,

Chairman

(In accord with the above plan, the following letter was prepared for issuance by the State Board of Health to every physician practicing in New Jersey.)

To Members of the Medical Profession
of New Jersey.

Dear Doctor:

The State Campaign for the Prevention of Diphtheria, inaugurated at a public conference called by Governor Moore in the Spring of 1927, has made excellent progress. The Executive Council of 19 members has met monthly, practically without interruption, throughout the past 3 years, and has enlisted the active participation of a large number of practicing physicians of New Jersey—some as chairmen of county or local committees; some as health officers; some as special members of the local committees, and others as clinic physicians.

In my letter of April 24, it was explained that the committee had become convinced that immunization of the preschool child is the point at which efforts for successful control of diphtheria must now be applied. This can only be effectively done, without resort to extension of public clinics, through physicians in private practice. In terminating its active campaign, the general committee is definitely placing responsibility for protecting preschool children in the hands of family physicians. Immunization of school children has already been accepted by educational authorities as routine practice, and the State Health Department, together with local departments and interested agencies, school people, voluntary health workers, nurses and others, is being asked to continue the educational campaign, encouraging parents to bring children to doctors for this treatment. Our obvious duty as physicians is to be prepared now, not only to apply immunization procedures but to urge in every suitable way that our clients have their children protected in this manner. The state-wide campaign committee believes that it has accomplished the task assigned at the organization meeting and should now gracefully retire, leaving final abolition of the disease to physicians and their own organization.

One final request in connection with this campaign is made in order that the committee and the physicians of the state may know definitely the results of the recent preschool campaign. All physicians are respectfully asked to answer the 2 questions on the enclosed post card and mail it back at their earliest convenience. The results will be published in an early issue of the Journal.

Thanking you in anticipation, I am

Very truly yours,

HENRY O. REIK,

Executive Secretary,

Medical Society of New Jersey.

In Lighter Vein

Indeterminate Sentence

An uplift worker, visiting a prison, was much impressed by the melancholy attitude of one man she found.

"My poor man," she sympathized, "what is the length of your term?"

"Depends on politics, lady," replied the melancholy one. "I'm the warden."—Boston Transcript.

Dangerous Amiability

Teacher—"Robert, if you are always very kind and polite to all your playmates, what will they think of you?"

Robert—"Some of 'em would think they could lick me!"—Goblin.

Division of Labor

Wife (at busy crossing)—"Now remember, Herbert, the brake is on the left—or is it the right—but don't—"

Henpecked Husband—"For heaven's sake stop chattering. Your job is to smile at the policeman!"—The Epworth Herald.

"Success depends on the proper functioning of the glands." This is especially true of the sweat glands.—Lancaster New Era.

Virtue at a Discount

Agent (to newly rich client, engaging talent for her "At Home")—"What about Madame D'Orano?"

Client—"Is she good?"

Agent—"Good? Why, she's a great virtuosa."

Client—"Never mind about her morals. Can she sing?"—The Humorist (London).

Golf Widow's Consoler

"My husband is away so much of the time I want a parrot for company. Does this one 'use rough language?"

"Lady, with this bird in the house you'd never miss your husband."—Capper's Weekly.

Perfect Seventy-Three

In the course of the trial the judge turned to the Negro woman on the stand and asked,

"How old are you?"

"I'se seventy-three, judge."

"Are you sure?"

"Yess, suh,"

"Mandy, you don't look seventy-three."

"I'se sure, judge."

After a few moments the trial was interrupted by Mandy.

"Judge, I'se mistaken about my age being seventy-three; that's my bust measure, suh."—Cheese and Crackers.

Sheer Foolishness

It was 3 o'clock in the morning, and the husband fondly fancied he had taken all precautions for silence when he entered the house and tiptoed up the stairs, but they were not enough for the vigilant wife who was waiting in the bedroom.

"Now, why on earth are you coming home at this unholy hour of the night?" she demanded.

"It is rather silly, isn't it?" he agreed wearily.

Current Events

TRISTATE MEDICAL CONFERENCE

The fifteenth regular session of the Tristate Medical Conference was held at the Penn Athletic Club, May 24, 1930, with Dr. William T. Sharpless, President of the Medical Society of Pennsylvania, presiding. Those in attendance were:

New York—William H. Ross, Brentwood, L. I.; Joseph S. Lawrence, Albany; John J. Jennings, Brooklyn; Harold Rypins, Albany.

Pennsylvania—William T. Sharpless, West Chester; Ross V. Patterson, Philadelphia; Frank C. Hammond, Philadelphia; Harry W. Albertson, Scranton; Arthur C. Morgan, Philadelphia; William Pepper, Philadelphia; Edgar S. Buyers, Norristown; H. W. Mitchell, Warren; William Pearson, Dean of the Hahneman Medical School, Philadelphia; Paul Raymond Correll, Easton.

New Jersey—Andrew F. McBride, Paterson; George N. J. Sommer, Trenton; J. B. Morrison, Newark; Charles B. Kelley, Jersey City; E. C. Taneyhill, Philadelphia; Henry O. Reik, Atlantic City.

Dr. William T. Sharpless (West Chester): At our last meeting, in New York, it was decided to have the next meeting confer on the subject of periodic health examinations, but when I found that the interest in medical matters over here centered largely on the question of licensure it was thought this would be a more interesting subject and so the topic was changed, with the consent of the members from New York and New Jersey. The paper today is by Dr. Patterson, Dean of Jefferson Medical College, and President-Elect of the Medical Society of the State of Pennsylvania.

Medical Practice Acts, State Boards, and Licensure in the Healing Arts

Ross V. Patterson, M.D.,
Philadelphia

By way of an attempt to justify, at least in part, the views which I am about to present, I may say that I have been actively engaged in medical education as an executive and as teacher for the past 24 years. During that time I have dealt with a student body almost constantly larger than that of any other medical school in this country; these students were prepared for medical study in a larger number of institutions, and examined before a larger number of state boards than the students of any other medical school. An alumni of 6000 men constantly shifting from place to place and presenting various individual problems, has been another factor in my experience with medical licensure.

I have also been concerned at different times with the activities of groups of cultists who have sought licensure, have served on various committees and in other bodies and have taken part in many conferences in which modification of the medical practice act was the subject under consideration. Three years ago I was appointed to membership in the Pennsylvania Commission on the Healing Art, which commission conducted public hearings and made a study of various state laws having to do with the licensure of those admitted to the practice of any form of the healing art. For nearly 25 years I have been in attendance upon the meetings of the Association of American Medical Colleges, the Council on

Medical Education of the American Medical Association, and various sessions of the Federation of State Examining Boards. I have had some experience with legislative bodies and political bodies.

I am familiar with the advances made in medical education in the past quarter of a century. I have been one of those who has had a part in the reform in medical education which has taken place during this time and have witnessed the evolution from the chaotic conditions of a quarter of a century ago to the present medical standards which uniformly excel those of any other country in the world. My point of view grows out of my practical experience. I have had many contacts with every state board in this country, and with many thousands of graduates applying to those boards for licensure. I am not asking you to consider what I have to say as the last word, but I hope that my experience justifies me in asking you to give consideration to the views which I present.

It has been said, and I think truthfully, that medical education is usually 25 years ahead of medical practice; and that medical practice is 25 years ahead of medical licensure. I take it that all of you are familiar with the advances which have been made in medical education in the past quarter of a century. Today there is hardly an exception to be made to the statement that every medical school in the United States is maintaining satisfactory preliminary and technical standards of medical education. The educational problems of 25 years ago are almost completely solved. Whatever remains unsolved can best be left to the medical schools themselves and to their educational organizations—the Association of American Medical Colleges, and the Association of American Universities.

The Federation of State Medical Boards, aware of changed conditions, revised its Constitution and By-Laws, February 1930, so that they now contain the following provisions: "In all matters of premedical education, courses of study, and educational requirements for the degree of doctor of medicine, or its equivalent, the federation recognizes the Association of American Medical Colleges as the standardizing agency for this purpose. The federation regards as its proper function (a) the determining of fitness for the practice of medicine, and (b) the enforcement of regulatory measures."

The foregoing is the first great step in reform of the activities of the state boards themselves. In the Commonwealth of Pennsylvania the board is known as the State Board of Medical Education and Licensure. You will please note that in its title, its purposes are indicated as (1) education and (2) licensure, with no mention of regulatory activities. To those familiar with actual conditions, it has long been known that any attempt of state boards to regulate medical education and medical standards was theoretic and not practical. In some cases a vague authority was assumed by the board, under provisions stated or implied in the "act" itself, and was sometimes exercised in such way as to lead to irritation and even abuses. It is apparent that state boards are not well constituted or organized to direct medical education. Their function, as now stated in their own constitution, is to deal with the granting of licenses to those qualified, or the withholding of licenses from those not qualified, and to deal with the many problems related to the many forms of medical practice such as discipline of licensed practitioners and the prosecution of those practicing the various forms of the healing art with-

out legal sanction and to the detriment of the public interest.

If state boards are most effectively to fulfill these functions, in the light of altered conditions having to do with both medical education and medical practice, there must be a change in the point of view, a revision of the medical practice acts, and a reorganization of medical boards. If the foregoing is conceded, we may set for ourselves the task of determining the manner in which such laws shall be revised, and medical boards reorganized.

The law itself determines the organization of the board so that this paper will for the most part deal with discussion of a medical practice act designed best to meet present conditions of medical education, licensure, and medical practice. I may say at the very beginning of this part of the discussion that I do not believe that uniformity in state laws is either useful or desirable. Many states have peculiar and special problems. Medical law should be drawn in such way as best to meet special needs, but there are, of course, certain fundamentals which should form the basis of a satisfactory law in all states.

In a general way, I may say that I believe the best law is one of simple construction conferring upon the body responsible for its administration the broadest possible powers containing the fewest possible number of specifications and restrictions. The present medical practice act in Pennsylvania has become very complex by reason of numerous additions, amendments and modifications, in the various attempts which have been made to incorporate in the act itself changes and advances in medical thought. This has led to difficulties in understanding its provisions, and consequent difficulties with regard to its enforcement.

Reduced to the simplest possible statement of its purposes, a medical practice act has 2 main objectives in view, i. e., (1) licensure of those qualified to practice any form of the healing art, either by examination or endorsement of credentials, and (2) the exclusion of those not qualified by withholding licensure, by the prosecution of illegal practitioners, or by the suspension or revocation of the licenses of those who should forfeit a right already conferred.

Almost since the organization of medical boards, their chief activity has been that of granting licenses to medical graduates by examination, reciprocity, or endorsement of credentials. Comparatively little attention has been given to the regulation of medical practice. In the light of advances made in the past 25 years, it is apparent that medical boards need concern themselves but little with the licensing of present-day graduates of medical schools. The present-day graduate is so uniformly well trained and qualified that he should be granted licensure by endorsement of his diploma, or by an examination of his official records in the medical school by a member of the board who would thereafter issue a certificate of proficiency which would automatically lead to the granting of the license by the board which he represents. State boards need no longer burden themselves with the laborious and tedious examinations of the recent graduates. Written tests have a very limited value as a test of qualifications for admission to medical practice. To my mind, abandonment of them except in the case of limited groups would be a great step forward, not only in relieving the board of an onerous burden, but in creating in the mind of the recent graduate and in the medical schools a feeling of good will toward the boards, and a desire to co-

operate with them. Too often in the past there have been antagonisms engendered between medical schools and state boards, and a feeling of irritation on the part of the recent licentiate at the very moment of his admission to practice. This has resulted in poor team-work among the profession, state boards and medical schools where cooperation would promote common objects.

I am aware of the necessity for examination of the graduates of many years ago, which examination should, I think, be practical in character in order to give consideration to years of practical experience; and for the examination of graduates of foreign medical schools, and with the last named group, I might include in some states, perhaps, the graduates of American medical schools not in membership in the Association of American Medical Colleges, although in Pennsylvania, I would favor exclusion from licensure, and therefore from practice, graduates of the few American schools not included in such membership.

If I have made my points clear, it is apparent that I regard the great function of the state board to be that of regulating medical practice. From this standpoint, it is, of course, a police board, created under the police power of the state, exercising its authority for the protection of both the general public and legally licensed practicing physicians.

In the Commonwealth of Pennsylvania, with its 10,000,000 people and nearly 12,000 licensed practitioners, this undertaking is obviously of gigantic proportions, requiring adequate legal authority, a properly organized board, and sufficient funds to accomplish its purposes. Obviously, it is a professional task, and not one to be entrusted to amateurs, functioning casually and incidentally by meeting a few times a year, and for the rest of the time devoting themselves to their personal and private affairs. I believe that I am well within the limits of a moderate statement when I say that professional boxing is better regulated in the Commonwealth of Pennsylvania than is the practice of medicine, and that considerably more money is at the disposal of the boxing commission for the enforcement of its regulations than is placed at the disposal of the board of medical examiners. And yet one body deals with a sport having to do with a small group of individuals, more or less strong in the back but weak in the head, whereas the other presumably deals with the vital problems involving nearly 12,000 professional men, practicing an art of the greatest importance to the citizens of a commonwealth constituting in itself an empire of 10,000,000 people.

At the present time, there are few questions involved in admission to medical practice. The real problems have to do with the exclusion of unqualified practitioners, the prevention of illegal practice on their part, and the discipline of licensed practitioners who fail to conform to legal and ethical standards of practice. The most difficult problem of all is that presented by the licensed quack; the better educated and the better trained he is, the more difficult the problem. A clever but unscrupulous man is the most dangerous of all and the most difficult to control.

Upon study, it becomes apparent that the problems are chiefly administrative ones. This means a board so constituted as to bring to bear upon its problems that kind of experience and intelligence which will most effectively carry out the provisions of an act designed to become an effective weapon under proper control. The most important personal requisite is a qualified administrative officer, such as an executive secretary,

with permanent headquarters, giving his entire time and study to the practical problems; effective administration means in addition, of course, sufficient funds to meet the reasonable expenses of administration. An act, no matter how well constructed, cannot be more effective than the support given it in men and money.

I believe that a properly constituted administrative board should be representative in character. The membership should include first of all a certain number of licensed and qualified practitioners of medicine. That provision in our present medical practice act which specifies that the board shall be representative of various schools of practice should be eliminated. I would also elide that provision which excludes from membership anyone connected with a medical school, since I am strongly of the opinion that a medical board would function far better if there was in membership upon it one intimately familiar with medical education. In addition to medical members, I would have someone to represent general education, such as a lay president of a university or college. A lawyer would also be useful on such a board, and I would include some distinguished citizen of the commonwealth, who by his previous record had shown interest in the public welfare and who might be considered to represent the public interests. The attorney general and superintendent of public instruction or special deputies designated by them should also be included.

All things considered, a single composite board would most effectively coordinate all activities having to do with the licensure of any form of practice of the healing art. In the construction of the act, I would make it possible to include in membership a representative of any special form of practice, and I would, if I could, bring into such a board an osteopathic member or members, and would consolidate the activities of the osteopathic board with those of the medical board to the end that the same standards of preliminary education and law enforcement should uniformly be applied to similar groups, and needless duplication of boards, standards and expenses incident thereto be avoided. I do not mean by the foregoing that I would necessarily enforce against osteopaths the same preliminary and technical requirements that would be enforced against medical graduates. However, specific educational and technical standards should not be specified in the act itself, but left to the discretion of the board and determined by the adoption of rules, which rules, under the general provisions of the law, would have the full force of the law itself.

Under very broad general powers such an administrative board, by the adoption of rules which could be changed from time to time, should have conferred upon it authority to do the following:

- (1) Establish standards of preliminary and professional education for various branches of the healing arts.

- (2) Determine the acceptability of medical colleges and hospitals as institutions for the training of medical students and graduates, and to establish a registry of such institutions.

- (3) Conduct licensing examinations having for their objects the determination of: (a) knowledge of the fundamental medical sciences; (b) proficiency in the application of a knowledge of such sciences to individuals and to communities for the preservation of health, and the prevention, alleviation and cure of disease; (c) authority to appoint special examiners to accomplish the foregoing.

- (4) Grant licenses by endorsement of diplomas, and of the licenses issued by other states and other bodies.

- (5) Investigate, conduct hearings, prosecute, and discipline irregular and illegal practitioners.

- (6) Suspend or revoke the license of those guilty of illegal or unethical practices.

- (7) Require all those licensed to register annually.

- (8) Budget annually a sufficient sum to meet the financial requirements of administrative and office expenses.

- (9) Appointment of executive secretary, investigators, clerks, etc.

The advantages of conferring broad powers and authority upon an administrative board are obvious. Changes in regulations can be effected without revision of the law. Changed conditions in medical education, medical practice, and the public attitude can be met by a modification or additions to the rules.

The dangers of such a plan are those of investing any body with autocratic powers. Safeguards would be found in the character and size of such a board. Its elasticity as to personnel, the possibility of the inclusion of cult representatives on it, are convincing arguments to the public as to its general rather than exclusively medical control. The authority to appoint special groups of examiners is another answer to cult demands; the educational and fundamental science requirements afford ample practical protection against their wholesale licensure.

Pursuing the discussion of the foregoing as well as some of the other essential requisites of a medical practice act, I offer certain further observations.

So-called *basic science laws* of various forms have been enacted into law by 6 states and the District of Columbia during the past 4 years. There is no agreement as to what sciences shall be considered basic, nor is there uniformity as to administration of the law. It has been effective in excluding from licensure the more ignorant of the cultists, although renegade medical students have found in this law an opportunity to enter upon the practice of medicine in a round-about way, under conditions less exacting than would have confronted them in the usual and ordinary course of procedure. Basic science laws raise the standard for cultists, and lower them for medical men. Obviously the qualifications of several hundred medical men admitted to practice each year are of more importance than the qualifications of cultists who, even if licensed, assume only a small part of the responsibility for medical care. As far as the recent medical graduate is concerned, he may be licensed by endorsement of his diploma without detriment to the public interest. The consensus of the best opinion is that while basic science laws do prevent licensure of cultists, they have not stopped them from practicing and are of dubious value. Their fundamental defect is their failure to test proficiency in the *art* of medicine in contradistinction to the *science* of medicine. An applicant might demonstrate satisfactory knowledge of anatomy, physiology, chemistry, pathology and hygiene, as required by the District of Columbia, and be utterly ignorant of the nature, recognition and treatment of a common disease. The ultimate object of all medical training is practice. No one should be admitted to practice of any kind unless, and most important of all, he unmistakably demonstrates his proficiency as a practitioner. Basic science laws do not in any way test ability as a practitioner. It would be quite as logical to call a man

a carpenter who could name the tools used in that trade regardless of his skill in their use.

If the chief object of a medical practice act be to prevent the licensure of cultists, basic science laws are a fairly effective but not a perfect means of attaining that object. They are no more effective than other laws in preventing illegal practice, and they are weak as applied to graduates of low grade medical schools in this country and abroad, and as applied to students flunked out of medical schools but who acquire a diploma from a so-called college of chiropractic without difficulty.

PROSECUTION OF ILLEGAL PRACTITIONERS

Prosecution of violators of the law should be a responsibility of the department of justice. A deputy attorney-general should be specially assigned to this duty, and should make a special study of medical law enforcement. County district attorneys are often indifferent or inefficient and subject to local influences which make them disinclined to prosecute offenders morally supported by influential persons in their home communities. Cultists are often defended by able talent employed by their state or national organizations, and by a resort to every technicality are usually more than a match for even the best district attorney striving for a conviction. Another reason to designate the attorney-general as the prosecutor is that the responsibility is placed with a legal body and not with a medical body. The latter is too often accused of being actuated by selfish motives, and of endeavoring to drive a trade rival out of business.

SUSPENSION AND REVOCATION OF LICENSE

The authority to grant a license implies also the right to suspend or revoke it. There should be authority to reinstate conditionally or for a limited period of time. The causes for such action should be specified, and should include at least the following:

- (1) Drug addictions.
- (2) Insanity.
- (3) Crimes and misdemeanors.
- (4) Fraudulent practice or fraudulent representations with regard to diseases and cures. (This provision would reach the advertisers and radio broadcasters.)
- (5) Unprofessional conduct.

MEDICAL INVESTIGATORS

Essential to the enforcement of any medical practice act is a corps of full-time, specially trained investigators under direction of the administrative board and responsible to it for performance of their duties. They would have to do with illegal practice of all kinds on the part of both licensed and unlicensed practitioners.

ANNUAL REGISTRATION

There should be compiled, published and distributed periodically a directory of all those licensed to practice any form of the healing art. The information contained in such notice to those interested is of inestimable help to law enforcement. The omission of a name from such a list at once calls attention to an illegal practitioner. It makes a potential investigator of every licentiate who may supply valuable information to those directly responsible for law enforcement. In time the public would come to know of such a list, and would consult it to determine the status of those about whom there was doubt.

Such a directory should be in the waiting room of every physician.

The pecuniary contribution to law enforcement is an additional advantage. I am aware of the objections to imposing upon those licensed any considerable part of the burden of law enforcement. Whatever theoretic objections there may be, they are far outweighed by practical considerations. Annual registration is now required by 21 states while several others require an occupational tax, which in the state of North Carolina amounts to \$25 per year. My personal view is that the registration fee should be about sufficient to cover the expenses of conducting the registration itself, publishing, printing and distributing a directory.

APPROPRIATION OF SUFFICIENT FUNDS

It is obvious that no medical practice act, no matter how well conceived and constructed, and no administrative board, no matter how carefully selected and talented it may be, will be effective in licensure, regulation and law enforcement unless funds adequate to the financial needs of such an undertaking are budgeted, appropriated and placed at the disposal of such a board. The executive secretary of such a board should be a man of exceptional ability giving his full time to the work of the board, and he must receive adequate compensation. Eight or 10 investigators should receive an annual salary of from \$2000 to \$3000 each, and such expenses as are incident to travel and the collection of evidence. Technical examiners must be paid. The foregoing incomplete indication of essential needs makes it apparent that effectiveness means adequate funds for support of the undertaking.

LICENSURE BY RECIPROCITY

There is a distinction between licensure as result of a reciprocal agreement between boards, and licensure by endorsement of licenses or diplomas presented by applicants without regard to the existence of such an agreement. Having made the distinction clear, I mention reciprocity only to condemn it. The only question which should be considered when an applicant presents himself for licensure is that of his qualifications. If another body maintaining equal standards and properly organized for the purpose has already determined the satisfactory character of the applicant's qualifications, his license or diploma should be endorsed and a license issued forthwith without regard to whether or not as the result of negotiations, dicker, and agreement, the first body to grant such license extends the same recognition to the second body. The issuance of a license should depend upon the qualifications of the applicant; not the existence of an agreement the result of a bargain between 2 boards. Bargaining, with consequent retaliatory measures of reprisal, is unfair to applicants and not in the interests of the public welfare. A deplorable example of the bad effects of basing licensure upon reciprocal action is the situation existing between Pennsylvania and New Jersey for the past several years. If the New Jersey state board refuses to recognize as qualified for admission to the licensing examination one of its own citizens who is a graduate of a literary college, and who has the diploma of a Pennsylvania medical college, and who has served 2 years in a hospital of first grade, because of any action of the Pennsylvania board, no matter how unfair, it is taking an indefensible action, one unjust to its own citizens and not in the interest of the public welfare.

CONCLUSIONS

In conclusion, I may point out what I consider the more important points of this paper, as follows:

(1) Concentration of activities of state boards upon licensure and the regulation of practitioners, leaving medical education to educational organizations.

(2) Recent graduates of first-grade medical schools should be licensed by endorsement of diploma, or by participation in the final examinations in the medical schools.

(3) Better organization of boards, with full-time executive secretary, sufficient funds, investigators, and clerical assistance.

(4) Membership of composite administrative boards should include practitioners representing all considerable groups of general and special branches of the healing art, medical educators, a lay educator, a layman, commissioners of health and education, and attorney-general. Possibility of inclusion of representatives of cult groups.

(5) Act should confer broad powers upon board which by adoption of rules and regulations would meet changing conditions without necessity for legislative action.

(6) Basic science laws are fundamentally defective and are not successful in controlling irregular practitioners.

(7) Prosecution of violators of medical practice act should be delegated to the attorney-general who should designate a special deputy for such service.

(8) Important to regulation of practice is authority to suspend, revoke, and restore licenses.

(9) Annual registration is a valuable aid to law enforcement; annual fee should not greatly exceed cost of registration itself.

(10) The evaluation of certificates of secondary and higher education should be delegated to the department of public instruction.

(11) Endorsement of licenses of other boards and bodies, and of diplomas, should be more general, and should not depend upon reciprocal agreements between boards.

DISCUSSION

Dr. John E. Jennings (Brooklyn): I received Dr. Patterson's manuscript a few days ago with delight, and certainly, after I had read it more than once, it appeared to me to be the fairest opportunity to discuss a very clean-cut, logical and straight-forward exposition of an idea in American medical education as it exists today that I could possibly ask for. I think it only fair to say in the beginning that I shall not discuss in the main the details of the proposals Dr. Patterson has made but shall confine myself to some of the basic principles of his paper.

Dr. Patterson said, in the first place, if I may quote him: "It has been said, and I think truthfully, that medical education is usually 25 years ahead of medical practice, and that medical practice is 25 years ahead of medical licensure." I take it that his discussion from that time on is an attempt, if you like, to bring a proposal before us for the advancement of medical licensure. Now, is that quite fair? You see I am considering this from the point of view largely of a practitioner. We have been active in Brooklyn for sometime to have organized medicine get the point of view of the practitioner, to see where it is reasonable and where it is not. Some curious things have happened in the last 25 years and I am not so sure that we can share the doctor's optimism. Our medical critics tell us that if we do not reform we shall have "state medicine". We

have noted certain changes that have recently occurred. In the first place, there has been a great increase in specialization; in the second place, a great advance in the cost of medical care; and undoubtedly, among us at least, there has been a great increase of illegal practice. I am speaking as a practitioner of Brooklyn and as a physician of New York State, and I think perhaps in some of these things we have had more trouble than you have had in Pennsylvania. Certainly, I know that of the boys who come to us for internship and for practice those who are the best educated and properly trained come from Philadelphia. Pennsylvania has been somewhat backward in accepting what we in New York have come to call "Flexnerism", and I use the word without hesitation. In other words, we have come to witness confusion in New York State between education and training. I think Philadelphia has clung to the old Greek ideal and has not been misled by Hebraic and Teutonic ideals. I think this has a very close relationship to what Dr. Patterson has proposed and is attempting to do.

Why is it that specialization has increased? One of the reasons is because of the smaller schools which have found it harder to exist. Many of them were unworthy of existence, but in Massachusetts they have recently been attempting to rehabilitate some of the smaller schools. The country boy who used to go to the small town school does not go into medicine any more and medicine in New York State is very largely recruited from the urban population, with lower ethical standards and ideals. Perhaps, after all, medicine is best learned at the bedside. Perhaps the basic sciences are not so important as actual contact with the preceptor. Is it not possible to go too fast and too far in this matter?

Another matter which should be considered as having a rather personal point of view but which nevertheless I am convinced is correct, is the attempt to control medical practice. I think the board of licensure, instead of being 25 years behind medical practice and 50 years behind medical education, should be 50 years ahead. The state governments and boards of education in medicine stand between the citizen and the doctor. It should be the essential duty of such licensing board to prepare medical education for the conditions to be faced. In other words, I think that a live, active department of education is what is most needed in adjusting the conditions of medical practice to facts as they are. Now this is a large job for a department of education. It means a great change in its point of view, in its personnel and in its efforts, but I think it should be done. I think if it is devoting its time to an attempt to enforce some sumptuary laws, from the point of view of the citizen, it is wasting its time.

I think the attempt of a licensing board to protect the citizen from the cultists is noble in its ambition, but it is futile in its results. The blood of the martyrs is the seed of the church and each persecuted chiropractor will produce 2 more, particularly if he is persecuted by the people whom the laity feels have an economic urge in that direction. Medical education is not set right to prosecute medical practitioners until the public and the laymen see it in the same light. You know they are charlatans and ignorant but the citizen does not know that, and I think myself that the large increase in irregular practitioners is a process of repair in the body politic, a process of repair in a disease of the body of medicine.

I will not attempt to say further why I think

that an attempt to protect the public from cultists by a board of education is impossible. I think the general principles that I have laid down are enough. I merely point out the fact that an investigator, a little bureaucracy, attempting to cull out the licensed practitioners and to prevent the illegal practitioners from practicing seems to forget that the citizen believes he has a right to consult any one he likes and that he will simply put the chiropractor, the more this law is enforced, into the unhappy position of a bootlegger. It will simply cost him a little more to fix your investigator, that is all.

To sum up, with the greatest sympathy for all the ideals that the doctor has expressed and with great thankfulness to him for his proposals, I think we should try to advance the department of education so that it will deal with education alone and leave protection of the health of the citizen to the department of health and the department of justice.

Dr. Andrew F. McBride (Paterson): At the outset I want to apologize for my lack of time to have properly perused Dr. Patterson's paper. Then I want to express my appreciation of the comprehensive manner in which he has presented the subject and the thorough manner in which he has set about offering suggestions as a teacher and member of many important educational bodies.

I quite agree with Dr. Patterson that there have been many and important advances made in medical education in the past 25 years; that practically every medical school in the United States is maintaining proper preliminary standards of medical education; and that the unsolved problem in this respect might be left to the medical schools themselves and to other educational organizations such as the Association of American Medical Colleges. I am in accord with his ideas regarding the Federation of State Medical Boards, when they say they regard their function to be first a determining of fitness for practice and second enforcement of regulatory measures. It is my firm belief that the laws governing medical examiners should be plain and understandable and should not contain any provision that tends to confuse or disturb applicants. No board of medical examiners should attempt to assume powers that are not conferred rightfully by law. And I think that setting up of standards of medical education might be left to the organizations referred to previously and to law-making bodies themselves which surely are better qualified to do this work. Boards might better devote their endeavors to the granting of licenses to the qualified and withholding them from the unqualified, to the disciplining of licensed practitioners for cause, and the prosecution of any of those engaged in the healing art who are not entitled to practice. These things should be brought about even though it means a revision of medical practice acts and reorganization of medical boards. As to what changes are needed to meet the new and changed conditions, and how best to promote them, these are debatable questions and we will probably find many views suggested here today.

I agree with Dr. Patterson that each state will have to approach the problem for itself, but there are certain fundamentals essential as a basis for the laws of all states. As was said before in this discussion, it is best to have laws of simple, understandable construction, giving such broad powers to the board as will best conserve the public interests. I think we are all in agreement that the medical practice acts of most of the states have become complex because of the many

amendments and modifications that have been made from time to time, for various reasons, and that there is confusion and misunderstanding which makes it difficult indeed to enforce the provisions of these acts.

I am in complete agreement with Dr. Patterson regarding the granting of licenses to engage in the healing art. This, likewise, applies to reciprocity for endorsement of credentials; of course, seeing to it that all necessary precautions are taken, I favor the regulation of medical practice, and constructing proper machinery with which to do it. States should not be parsimonious in providing funds for this purpose. Failure to do this, on the part of officials having governmental control, is an injustice to residents of such states. The preservation of life and health of the people should be one of the greatest, if not the greatest, concern of the government of any state.

Concerning the constitution of state boards of medical examiners, such as proposed by Dr. Patterson, while this may sound well theoretically and please some, I personally cannot subscribe to it. Such a board, in my opinion, is impracticable and fraught with great danger. Such boards should, I think, consist exclusively of medical men and women, not because I do not have the highest regard for educators other than medical men, or for lawyers and for public-spirited citizens of the state, but solely because I believe that members of the medical profession understand better the problems to be dealt with. Referring to the inclusion of osteopaths on such a board brings to mind the New Jersey board. We have an osteopath, a chiropractor and an eclectic member on our board. They deal with subjects peculiar to their cults. We have no "dual board". The chiropractors previously had a separate board.

This brings up another point in Dr. Patterson's paper with which I cannot agree; when he says that he would not enforce against osteopaths, that includes the other cults, the same preliminary educational requirements that have to be enforced against all regular medical graduates. This, to my mind, has been and will continue to be the crux of the question regarding all the cults, and unless we take a firm and uncompromising stand and demand the same standards and requirements from every one seeking licensure to engage in the healing art we will never properly solve this question. I must insist that in the public interest, as I understand it, all who would be permitted to engage in the healing art should meet the same standards of requirements, and when you have provided for this you will have accomplished one of the greatest services to humanity that any profession has ever made.

Annual registration is a moot question. Personally, I have no objection to it but many others have and for what they believe good and sufficient reasons.

Concerning the conferring of broad powers on state boards of medical examiners, this surely is all right if the appointing power is careful in selecting the right people as members of such boards.

Concerning the basic science laws, I think my answer concerning the requirements of the cultists for licensure covers this. I am in agreement concerning who shall prosecute violators of the medical practice acts. As to the suspension or revocation of licenses, I am in thorough accord. The only thing that occurred to me in that regard was your fifth cause for the loss of a license—unprofessional conduct—and I wonder exactly what you had in mind in that respect?

Dr. Patterson: I would leave it delightfully vague.

Dr. McBride: I thought that was a question that should be thoroughly set forth because I can see great possibilities for trouble there. As regards special investigators, the appointment of the proper person would I think help to properly carry out the provisions of the medical practice act. The appropriation of sufficient funds, I favor.

As to licensure by reciprocity, I appreciate the distinction between licensure by means of reciprocal agreement of boards and by endorsement of boards without regard to the question of an agreement between 2 states. Dr. Patterson's condemnation of this practice has much of merit in it, in my opinion, and I can see that much that is harmful can follow the custom which now exists between states. I am glad that he touched upon the deplorable example of this practice in regard to the strained relations that now exist between the boards of examiners of New Jersey and Pennsylvania. That a disagreement so serious in character exists is both regrettable and deplorable, and it should not continue. I wonder if Dr. Patterson and myself, as Presidents of the New York and New Jersey State Medical Societies, cannot devise ways and means to bring about a better understanding in this matter? I had in mind, sir, that yourself as President-Elect and myself as President of the New Jersey State Medical Society might with the aid of a member of the state board of each state, get together, and if we cannot agree we might have a member of the Medical Society of New York act as arbitrator. That came as a suggestion while going over your paper. It may lead to a better understanding and might clarify this whole situation. I wonder if you and I cannot arrange for such a conference to end this very disagreeable situation that now exists?

Dr. Sharpless: I thought perhaps it might enlighten some of the men from other states, who are not familiar with the situation, to give a short review of medical licensure in Pennsylvania. The medical society of this state has been vacillating for some years past. Our Board of Trustees proposed, and the House of Delegates declined to accept, the establishment of a nondesignate Board. Then there was a basic science law introduced which has received considerable support. I believe if a vote were taken the majority would vote for a basic science law at this time, but that might be wrong, in view of the new and more advanced plan that Dr. Patterson has introduced. I think it will take some education perhaps, not only in the legislature but among the doctors of the state, to get them to give up entirely the idea of a basic science law. In fact, his plan includes most of the good features of a basic science law and I believe there is none of us who has a belief about this matter that cannot be changed by argument and explanation. We were told 2 years ago that the present law should be changed by argument and explanation. We that we had better devote our efforts to elimination of the chiropractic bill, which was done successfully through the work of Dr. Correll and Dr. Patterson and others. If I thought any law was 90% effective I would like to retain it for I think it would be very difficult to get one to do more than that. I merely want to make this brief explanation in order to enlighten the people here as to what we have been doing legislatively in Pennsylvania.

Dr. Harold Rypins (Albany): Assuming that I might be asked to make a few remarks I took the

liberty of bringing along some reprints which I will pass around, as I shall refer to them.

It is certainly obvious that it is a good thing to have these conferences away from home, for you learn things you never learned at home. I have been associated in work with Dr. Jennings but I never realized until today how differently he and I look at this thing, so I have already learned something by coming here.

I shall confine my remarks largely to the Medical Practice Act of New York simply because I have the greatest experience with that act. I have been administering that act and naturally can speak of it with more authority than I can of other acts, and if I do seem dogmatic it is because I have had a good deal of first-hand experience with it and with the laws of other states. I believe I am the only man in this country devoting his whole time to this problem. The trouble with most medical practice acts is that they have been written without having a clear idea of what the act is to accomplish. It attempts to protect the public health by giving the right kind of physicians to the state. There are 3 things you must do to get the right kind of physician; first, to train and license the right men; second, to take out those who have not behaved properly; and third, to keep from practicing those who do not meet the qualifications. Every medical practice act must have these 3 assets and each of them must work successfully; these 3 things must be integrated. I know of no way in which that can be done unless the whole thing is embodied in one act and that act is administered by one board or body.

In the early days the emphasis was almost entirely on education and licensure. We made a good deal of progress for 25 years and I agree exactly with Dr. Patterson that at the present time medical education in the United States is more satisfactory than anywhere else in the world. I have just read the medical education report of Europe and there is no question that a careful study shows that American medical education is better organized than anywhere else in the world.

Dr. Jennings has raised the interesting question of whether the state department of education should take a leading part in medical education. To my mind, at the present time, the only real contribution that a state department of education can make to medical education is to leave it alone. In the first place, many of these departments do not know much about medical education. In New York, we think our department knows something about it, but medical education is a national problem. Men trained in New York may practice in Texas, and therefore it is not a local affair. Now, there is a national body that knows a good deal about medical education, that is the Association of American Medical Colleges, made up of the deans of all the respectable medical schools in the United States. It is a body made up of experts in this field and, having attended its association meetings for 7 years, I am prepared to say that it knows its business. It has no legal authority but it has a great deal of moral authority and knows its subject, so what the state can best do for this body is to leave it alone, except to give it the legal backing that the state has.

Dr. Patterson referred to the action of the Federation of State Boards; transferring authority over medical education to this association of experts. I am proud to say that I believe I was largely responsible for this and according to my opportunity I shall continue to suggest that medical schools as now organized are highly in-

telligent and have demonstrated their ability to regulate medical education and have shown much more progressiveness in changing the types of medical education than 48 near-expert state boards or state departments of education ever can. I think state departments should do their best to back up this national association of experts. On the other hand, this association has nothing but moral force. It will, therefore, be necessary for the state departments to maintain technical control over medical education so that if needed the power is there, but apart from that the best policy is to leave it to the schools through this association.

Because of the very great progress in medical education in the last 25 years that aspect of the problem is now reasonably well taken care of. It is not perfect by a great deal but if these schools are left to themselves they can work out the education problem very much better than the boards and the state departments of education can. It was because in the past the educational problem was so badly handled that the states took so much responsibility in the matter and in doing so they neglected 2 other very important aspects of the problem. They set up educational standards. They required us all to meet them but they did practically nothing to those who did *not* meet the standards. That is why so many people who were not properly educated were practicing. Secondly, they allowed a man, once he was in, to continue as a practitioner whether or not he had the intellectual abilities and the qualifications which are necessary to a good physician. Now the emphasis, it seems to me, in any modification of the state law must be in these fields, first, to get the proper sort of men to practice, and second, to keep out of practice those who have not met the educational qualifications. So, I should like to confine myself to those 2 aspects very briefly.

I will take up first the question of the discipline of the licensed practitioner. Because of the large amount of work involved, in New York we have split up and now have a Board of Medical Examiners which does nothing but examine applicants for licensure, and we have a Grievance Committee which does nothing but handle cases of discipline. That is made up of 10 of the leading physicians of the state who serve without compensation, for the good of the profession. It holds legal hearings and recommends the proper discipline to the Board of Regents of the state education department. Only once have the Regents disagreed with the Grievance Committee. The moral effect of this committee has been very great. It has been operating since September 1928 and has considered 119 cases of charges against licensed physicians. That does not mean that is all the charges there were but only where we thought action needed to be taken. The other group shows charges which should not be brought against the physician, and there was a smaller group where the physicians really were guilty of improper practice and should be disciplined. When this was put into practice we did not anticipate much trouble about the first group, but we have had a large number of complaints about malpractice, unethical and unprofessional conduct. Where, ordinarily, people would employ a shyster lawyer and have a law suit, they have now found that without hiring a lawyer they can come before this committee and air their grievances. It has been very valuable to the profession, and is a by-product which we did not anticipate. All of the cases listed as malpractice, practically all listed as miscellaneous, and all listed as unethical conduct, have been complaints of people

who would ordinarily bring a law suit against physicians, and instead of that they have come before this committee, had the situation explained, and gone away satisfied.

In reference to the physicians who have not been practicing properly, I am frank to say that the more one sits with that board the more he realizes that the moral character of the profession is at least as weak as the educational qualifications, and that will be a more and more important thing to look into.

You will see (referring to statistical tables at end of this discussion) that there were approximately 90 cases where there was some reason to believe the physician had not acted properly. We have attempted to make this a series of elimination tests. Of 93 cases, I was able to dispose of 42 myself. A complaint letter comes in, I have an investigation made of the facts of both sides, and if I feel that the physician has been all right I simply write a letter to the complainant saying that the case has been thoroughly investigated and that it has been dropped. Not a single such case has appeared, so far as I know, in the Civil Court afterward. Many cases have had an informal hearing, that is, instead of serving papers on the physician to appear, we simply write and ask him to appear before a subcommittee. We have no power to enforce that but so far no one has failed to appear and one is usually anxious to have the matter cleared up. Then, we have an informal talk and in most of those cases, without serving any legal papers, we are able to make the physician see that his practice is improper and unless he will agree to change he will have formal papers served on him. In improper advertising there were 14 cases. We have all sorts of things to deal with and all of those people have agreed to advertise properly or to discontinue advertising. That has been very valuable, I am sure, and it has been done without very much legal work, although we always have legal counsel present. There were 12 cases of ambulance chasing taken care of in that way. Where these men were on the border-line, where the case was not proved, but where they were lowering the standing of the physician with the public, they have been made to see it. In these cases the committee decided that no legal action should be taken but the physician was warned and he knows that if he comes up again those papers are still there. So, out of 119 cases, we have already disposed of 93 to the benefit of the practicing physicians and to the benefit of the public and the reputation of medical men generally. The effect of this throughout the profession is notable. Men say: "I do not want to do this without having your advice as to whether it is all right; we have heard that you are watching this sort of thing." There were only 18 cases where we have had to do anything at all severe. We have recommended revocation of only 5 licenses. Of course, that is a serious thing and the man is given an opportunity to have many hearings and this is only done when we are convinced that he is not a proper person to practice. We have suspended licenses in a few cases. In the case of very young men who did not understand what it was all about we told them to go away and study for 6 months or a year and then come back. We think that is better than taking them out of their livelihood entirely. We have censured some men, around the age of 70, who might starve if their licenses were taken away. In such cases we bring them before the body in formal session and simply "read them the riot act" and it is perfectly amazing how impressive that is. No man

likes to be told that he is a disgrace to the profession. I feel that the work of the Grievance Committee, although it is a great burden to the men who serve on it, has done a great deal to raise the prestige of the profession with the public and to impress upon the young men that to be a member of the medical profession means something more than to know medicine, that it means to be a man of character.

Now, it would be ridiculous to go to all these pains with qualified men and to try to jack up their ethical standards and to insist upon a man going to a proper medical school for 6 years, if at the same time you allowed a man who did not do any of these things to continue in practice. It is a proper function of the state to attempt to eliminate unlicensed practitioners and I think this is being done in New York. I do not say they can all be eliminated but I do say that you can cut them down so remarkably that it is apparent to any unprejudiced person that it is worth doing. On the first sheet you will find my figures for 3½ years that we have been enforcing the medical practice act. We made over 2000 investigations and I think it was worth the time and money it cost, though 807 showed no cause for action. Sometimes a physician writes in that a man is violating the medical practice act and you may find that he is having an argument with the doctor next door and wants to get him into trouble. Many of them are not violating the law at all, and that is disposed of by making an explanation. Over 1000, or almost 45%, were violating the law but these cases can be settled usually without going to court. We want to stay out of court as much as we can. If we go to an optometrist who has not the right to call himself "doctor" we say: "Here is the law, what are you going to do about it?" If he takes his sign down, that is quickly done and you are through with him. It is work done outside of the law courts that is best. We check up afterward to see whether the violation has been discontinued. That disposes of more than 2/3 of all the complaints. We

have actually had 366 cases in the courts and, although that may not sound like very much, we have deliberately selected those cases that could not be handled outside of the courts and where we thought we had an excellent chance to win. We had 137 convictions and only 9 acquittals, and I think most of them were jury trials in small towns. We have withdrawn 38 cases, mostly cases where men were practicing and were waiting to get their licenses. Where a man is properly educated we would prefer to get him into the field of practice and not prosecute him.

To summarize, I have classified under no evidence of violation about 1/3. Outcome satisfactory includes those where we won the prosecution or stopped the violation without prosecution. That accounts for about 50% of all the cases. Outcome not satisfactory takes care of 47. In spite of all that has been said, I think it is clear that you should not insist upon high educational standards unless you can keep people without them from practicing. Secondly, you should not insist upon highly ethical standards unless you can keep the people out who do not observe this, and if you go about it properly you can to a great extent keep them from practicing.

Dr. Jennings is right in regard to making martyrs of these people. Many of those who are prosecuted will become martyrs to the cause. There are 2 ways of avoiding that: one is to make it clear that the prosecution is not brought by the medical profession, but by the state; and the other is simply the way we are doing it. You should not "razz" them too hard. My difficulty has been in keeping them out of court and I think Dr. Jennings will agree that with but 366 cases in New York, there has been no hue and cry of persecution. They have not been pushed hard enough to get up a story of persecution. I am still very much of the opinion that the New York Act is working successfully, and that it contains the essence of what would probably make a very good act for the state of Pennsylvania.

THE STATE EDUCATION DEPARTMENT

Board of Medical Examiners

HAROLD RYFINS, M.D., *Secretary*

ILLEGAL PRACTICE OF MEDICINE

1927 - 1930

	1927	1928	1929	1930 (to May 1)	Total
No Cause for Action	286	248	260	43	837
Violations Stopped without Prosecution	340	292	336	78	1046
Prosecution	102	98	123	43	366
Convictions	30	44	43	20	137
Acquittals	2	1	3	3	9
Withdrawn	12	12	13	1	38
Pending Trial	58	41	64	19	182
Cases Incomplete .....	..	..	..	17	17
Total Investigations	728	638	719	181	2266

SUMMARY

No evidence of violation	837
Outcome satisfactory	1183
Outcome not satisfactory	47
Cases pending	17

Total 2084

GRIEVANCE COMMITTEE

The State Education Department

Orrin Sage Wightman, M.D.,
Chairman

Harold Rypins, M.D.,
Executive Secretary

COMPLAINTS AGAINST LICENSED PHYSICIANS
Sept. 1928 - May 1930

Violation	Complaints	Disposed of by			Forwarded to Regents for			Pending
		Secretary	Informal Hearing	Formal Hearing	Revocation	Suspension	Censure	
Attempted Abortion	16	5	7	1	1	1		1
Improper Advertising	25	9	14				1	1
Aiding Illegal Practitioners	17	6	2	1	1	2	6	
Ambulance Chasing	16		12	2				2
Fraud and Deceit	10	1	2		1	1	2	2
Malpractice	9	3	5					1
Unethical Conduct	5	2	3					
Narcotic Violation	1				1			
Insanity	1				1			
Commission of Crime	1							1
Miscellaneous	18	16	2					
Total	119	42	47	4	5	4	9	8

Dr. Charles B. Kelley (Jersey City): When I received an invitation from Dr. McBride, through Dr. Reik, I readily accepted, and since hearing Dr. Patterson's paper I am more than pleased that I have come. Dr. Patterson's paper particularly interests me because it is presented by a specialist in medical education, in a specialty outside of his own field, medical licensure. Medical education and medical licensure are separate and distinct special fields in medicine and I am particularly pleased to know that Dr. Patterson has such well conceived ideas in regard to licensure. There are perhaps 1 or 2 things with which I might disagree, but they are only minor, and in general he has outlined the ideal medical practice act.

When state licensure was inaugurated, approximately 40 years ago, the educational system of medicine was very chaotic. There were all sorts of medical schools and medical graduates. Of course, the most important part of the medical board's work at that time was to separate the good from the bad, or the sheep from the goats, but since 1907, when inspection classification of medical schools began, the work of medical schools has so improved that at the present time the product of the medical school is so good in most instances that examinations by the state have become unnecessary, or at any rate superfluous, and that led up to the resolution of the Federation of State Boards of which Dr. Patterson spoke and to which Dr. Rypins referred. But even in that resolution there is a discrepancy because the Federation of State Boards accepted the classification of the Association of American Medical Colleges, whereas most of the classifications and certainly the improvements were brought about, originally at any rate, by the Council of Medical Education of the American Medical Association,

and even today there is a discrepancy in what is the approved school of the A. M. A. and what is a member of the association of colleges, unless it has been recently changed.

Dr. Ross Patterson: That has been changed and the 2 lists now agree.

Dr. Kelley: Up to this time it became necessary, of course, to say what classification we were using. The word Class A medical school in the strict sense of the word meant the A. M. A. classification. Now, while the idea of admitting the qualified man to licensure by credentials rather than by examination is undoubtedly correct, still it is impracticable at the present time, although eventually I think it will come and I think it should come. Of course, that does not mean a discontinuance of the state boards of examiners because there will still be many functions for them to continue. In the first place, there would be the necessity for verification of credentials and this may be interesting to the educators present, that the amount of spurious credentials that come into the state board is quite enormous, and in that particular regard the plan of Amos and Andy for a check and double check is the only remedy.

Then, of course, the foreign graduate must be taken care of and it is often very difficult to ascertain the standing of the school from which the foreign graduate comes and the only thing you can do is to examine him.

Third, there is the old graduate. It is surprising how many men have been out in practice 25-30 years without a license and all of a sudden they want one. The strictest kind of scrutiny of their credentials is necessary because the medical school of 25 years ago was not as good as it is now. It has been our experience in New

Jersey, and evidently in New York, that when a medical man goes bad he usually belongs to the old vintage rather than the recent graduate. Most of our trouble is with the older men. They are men who in many instances have been unsuccessful practitioners in some place and who go into a new location and, often, associate themselves with advertising offices.

Then, in New Jersey, there remains the function of examining the osteopath and the chiropractor, and while there is no doubt that the osteopathic schools are coming up, and I think that may be said particularly of the Philadelphia school, they have not reached the place where credentials can be accepted in lieu of examinations. There is also the big function of prosecution of the illegal practitioner. I do not think most practitioners appreciate the fact that the passing of legislation is not the important part of the work, but that it is the enforcement. In New Jersey we have been particularly active. Our state is only between 1/4 and 1/3 the size of Pennsylvania, so far as the number of practitioners are concerned, but we run between 400 and 500 investigations a year and always have from 40 to 75 cases pending in the courts. The only reason we are not doing more is because we haven't the money. We receive no appropriation. We have to take money out of the general funds and our largest income item is the endorsement of licenses from other states. Most of them come from New York. We would rather endorse a license, for which we get \$100, than to give a man an examination for \$25. We receive about \$20,000 a year on endorsements of licenses from other states and \$10,000 from New York. We are very fortunate in having as a full-time inspector a woman who is undoubtedly ideally suited for the work. Secondly, we have always had an attorney-general who has been sympathetic toward the laws upholding public health.

This next topic touches somewhat upon what Dr. Patterson said about the deplorable condition existing between Pennsylvania and New Jersey. I said previously that there is a difference in classification in medical schools. That seems to have pretty well disappeared now but the difference of classification becomes particularly accentuated when you come to your fifth year of medical education, the hospital year. We have the A. M. A. and the American College of Surgeons' classification as well as that of the individual state boards in states where the intern year is required. Because of these various classifications conflicts between the state boards have arisen and Pennsylvania has been the storm center. New Jersey is not the only state that has this difficulty, for Pennsylvania has had quarrels with half a dozen different states regarding this subject. The Pennsylvania Board has never seen fit to accept any classification except its own; saying, the board cannot according to the law accept the classification of any body such as the A. M. A. or the American College of Surgeons. Consequently, when we broke off relations with Pennsylvania, in 1925, it was over nothing but the intern year. We still accepted Pennsylvania graduates if their intern year had been served in a hospital which we could accept. That went on until within the last year we felt that we had settled it. The Pennsylvania Board still holds to the position that it cannot accept any internship except in a hospital inspected and approved by its own inspection. We have adopted as our classification for the graduate in medicine the fifth year training for the graduate and the A. M. A. classification. We will accept an in-

ternship in any hospital in the United States approved by the A. M. A. for intern training. That includes Pennsylvania also. And we hope that Pennsylvania will some day or other extend us the same courtesy. That is all we are asking and whether they accept the New Jersey hospitals approved by the A. M. A. or not we will accept those in Pennsylvania approved by the A. M. A. We feel that there cannot possibly be anything broader than that.

As to the question of interstate relationship, all of the laws of the 48 states are different and if the various state boards want to bar out members of the profession from sister states they can do it on technical ground. New Jersey and New York have no conflict because the heads of both boards attempt to administer the "spirit" of the law rather than the "strict letter" and consequently the interstate endorsement goes on quite happily. It is simply because of this interpretation of the spirit rather than the letter of the law. I feel that it is the same spirit in which this Tristate Conference was conceived and it particularly pleases me to be here today because of that fact. After all, Pennsylvania, New York and New Jersey are pretty close geographically and we cannot see any reason why the physicians of the 3 states should not have the freest kind of reciprocity.

Dr. Sharpless: Some of us here have somewhat the same opinion of the Board of Licensure that Dr. Kelley has expressed. I am sorry that Dr. Green could not be here but Dr. Albertson is a member of that board and we would like to hear from him.

Dr. Harry W. Albertson (Scranton): I first want to pay my compliments to my good friend, Dr. Patterson, for this excellent paper. He and I have been on the floor before and expressed our views and I believe we are mutually understanding in regard to what he has said. I want further to say that anything I may say in this discussion is not by authority of the Board of Medical Education and Licensure. I do not represent that board today. I am in attendance at this conference by the fact of being a member of it, practically one of the originators of it.

I believe thoroughly, after 28 years of practicing medicine, 20 years of which have been spent very largely in organized medicine, that there is a whole lot yet to be done in the matter of licensure. I am led particularly to believe that as I go over the report of the Committee of the A. M. A. on Medical Education. I spent sometime recently reading that report and I find there that they began with supervision of the practice of medicine somewhere in the twelfth century and that they last revised their medical practice act in England in 1922. If they have been at it all these years and we have been at it also for many years it certainly goes to prove that changing conditions bring about situations which we have not been able to foresee, and that the day when medical practice acts do not need revising Gabriel will have blown his horn.

A number of the ideas suggested in Dr. Patterson's paper are excellent to be put into effect 25 years from now. There is still much work to be done to bring the matter of medical education and of licensing boards somewhere near a working basis. His ideas are excellent and I am in full accord with most of them but there is a lot of difference between medical education and medical licensure. The Pennsylvania Board does not accept graduates from all schools in America. There are in New England some schools that have for reasons of their own refused to come up to

the standards of the A. M. A. and that are not Class A schools. We do not accept graduates from those schools. One of the great problems of the Board of Medical Education and Licensure in Pennsylvania has been just the problem that Dr. Kelley has spoken of, lack of funds. I sincerely believe that there was integrity and intelligence and the desire on the part of the board 30 years ago to have kept from our folds many of the so-called cults if they had possessed the money to do so. But they had no money, the cults got a hold, and now the question is a very much more serious one and it takes longer to work it out. I am not at all in accord with the idea that they cannot be kept out. I believe the people are becoming sensitized to the proposition that their health is better guarded by those who have had sufficient training and who are properly licensed to care for their health. The other class of people will die out if you leave them alone long enough because they have no scientific value. We are gradually seeing that in Pennsylvania. If the Board of Medical Education and Licensure had had the funds to have stopped the first osteopathic school the other cults would not have come up and if the present board had sufficient funds to straighten up the matter now, 20 years from now we would not see other cults come in, but if we do not do this other cults will appear and it will take much more time to straighten it out.

As to the matter of an annual registration fee, I sincerely believe that is quite necessary. It keeps the board in touch with the practitioners in the state and, as has been said, it is a very good plan to keep the public enlightened as to who is and who is not a licensed practitioner. Twice while I have been on the present board an attempt has been made to raise the annual fee. With this I have not been in accord. I cannot bring myself to feel that the medical profession should pay for all of the investigations. There should be an annual fee for registration but the increase in that fee for the purpose of paying for investigations I cannot quite see. Perhaps I am wrong but I am willing to be shown. Before the days of annual registration in this state there was no money for the use of medical education and licensure. We now have a small amount from the annual registration with an understanding from the department that the money that comes in shall be turned back to the board for its use. That was the idea of some members of the board in raising the fee. I stood firmly on this, not being in accord with it, and as yet we have kept it down.

The fact that 2 states have repealed their basic science laws recently leads me to believe that these laws are not what we would first have believed them to be. I do not think that they work out well. I have tried to keep in touch with the secretaries of the boards of the states that have had basic science laws and I am led to believe that they are not the best means of keeping out those who would come into the medical profession by the back door.

As to the matter of enforcement, in Pennsylvania we have had the good fortune of having attached to our board for the last few years a member of the department of justice. There is scarcely a meeting at which he is not in attendance, and we frequently have to call upon him for advice. Every board, I believe, should have a member on it from the department of justice who could speak with some legal authority for the state, although I am not sure that it should be a lawyer. He is not needed in the matter of prosecution, un-

less you can get public sentiment in the county in which you wish to bring your prosecution or the coöperation of the court and district attorney. We have often found that a case of illegal practice is brought up in the county and the district attorney or some member of the court has thrown it out because they were not in sympathy with it. We have yet a lot of education to do to bring the courts and the public to our way of thinking.

In the matter of reciprocity, that seems to have been a very good subject for this morning's discussion. I do not see how you are going to have reciprocity with other states where there is a difference in laws, not a difference in the matter of interpretation of laws but a difference in the reading of the laws. If a board of medical education and licensure is going to be of any service to the people and to the medical profession, that medical profession must have had something to do with the drafting of the law under which they wanted it to work. I frankly admit that there are many things in the Pennsylvania law that might be changed to advantage but I do feel that if we are going to enforce that law there are certain provisions which are written into it which must be repealed for I do not see how we can do other than enforce the law under the present writing.

That brings me to the question of students from outside our own state. I believe firmly that it is useless to examine members of Class A medical schools but men have come into our state whom we were not sure had come from Class A schools and we must have some form of examination for those men. But I think for men who have graduated from Pennsylvania or other schools and have complied with the requirements in the state, an examination by the board is superfluous. However, men coming from other states and from foreign countries should not be admitted simply on their credentials for this would be very impracticable. We have no supervision of their education and an examination must be held to determine their fitness.

Dr. Kelley and I have talked over the condition existing between Pennsylvania and New Jersey and I think we thoroughly agree. I believe that matter can be all straightened out easily enough. I do not see much reason for it in the first place but this all happened before I became a member of the board and I am sure it has been a blot on our states that there should be any disagreement and I will certainly be glad when it is straightened out.

Dr. Sharpless: One of the men whom we are always glad to see at these meetings and who gives us excellent notes of what is going on is Dr. Lawrence. I suspect that part of his efficiency is due to the fact that he grew up in Pennsylvania.

Dr. Joseph S. Lawrence (Albany): There is not much that I can add to this excellent paper and to the splendid discussion that has followed. I did have 2 or 3 thoughts, however, that I would like to express.

I felt, Dr. Patterson, that your comment on the matter of the care that has been taken by the state with regard to boxing as compared to the care taken with regard to the practice of medicine is well placed. With my experience with legislatures I should say that is largely due to the fact that interest in boxing is represented usually by 2 or 3 persons who give a lot of thought to the matter and who propose the regulations that are acted upon by the legislature, and who support them with unity. Now, when it

comes to proper legislation for a group of intelligent men, such as physicians are, it is mighty difficult to draw any regulations, no matter how simple, that will meet with a united support. Always somebody finds that it won't work out this way or would be better written that way. Perhaps you have gotten accord and at the last moment some very prominent individuals will discover weakness in the law, and the legislator who started out to support the measure feels that he is never certain about the matter, with the result that legislation is postponed or it is so modified that the original framers of the act hardly recognize it. I believe if we could delegate our authority in matters of legislation that we would get along much better. In New York State we have tried to do that in the last few years, with very satisfactory results. Our county societies are not permitted to oppose legislation in Albany. They can make any opposition to legislation that they desire through the state society committee and in their own county but they are frowned upon if they attempt to send delegations from the county to oppose a measure that has received the approval of the state society committee.

With regard to our attitude toward the cults, I wonder how it would strike you, Dr. Patterson, to have the suggestion that the medical schools make a point of pronouncing from an educational point of view upon the various cults and their practices? As a matter of fact, the department of education is founded on the acts of medical schools. This was raised last year in our state society committee by members and it seemed an argument that could be answered very readily, for if chiropractic has anything in it why should not the medical schools say so? Why should not the legislators have the advantage of the knowledge of pronouncement of men who are thoroughly trained in medical matters? If legislators knew that the medical schools of the state had made the pronouncement to the public that chiropractic has nothing in it, then the legislators could advance with some degree of confidence. As it is, they are subjected to the arguments of many well trained men on both sides of the question. Medical men advance their arguments, and arguments are also advanced on the other side by very well trained and educated men, because the chiropractors usually have well trained leaders; in New York State, for instance, they have an ex-minister who became a supporter of the cult because his wife failed to respond to medical treatment and did respond very promptly after a chiropractor had been employed, so he is persuaded it is correct and he is a very intelligent and difficult man to meet in an argument.

I was delighted to hear what you said about the basic science law. It has never appealed to me. I have always felt that it had the weakness that you have told us has been demonstrated in the states that have tried it. It was simply an opportunity for men with a limited education to get a half-way standing which the public cannot discriminate against.

Now, I am a strong supporter of what Dr. Jennings said in discussing the paper with regard to the division that should be made in the jurisdiction between the departments of education, public health and justice. It occurs to me that the department of education should have absolute authority with regard to the education and licensure of those who would practice the healing art. I think that after that it becomes a matter of public health as to whether the individual follows out his early teachings or not. At the present time we are licensed with no strings what-

ever. We can go and practice medicine so long as we interpret the teaching that was given us; that is, we are not obliged to follow any school in our care of a case of pneumonia. Two men practicing in the same community may so far differ with regard to their treatment of certain conditions that in their own minds, vice versa, they are doing the worst thing that can be done. That is frequently demonstrated. There is no end of argument on that point. But there is one matter upon which there can be no debate and that is the form of medicine that is practiced in the interests of the public health. And if it is not done in the interest of public health that is a jurisdiction for the department of health.

With regard to whether a man is violating the law or not, as to whether the cults have a right to practice or not, I do not believe that is a matter for the Department of Education or the Department of Health, but a matter of enforcement of the law and could be entirely in the office of the attorney-general. In New York, Dr. Rypins collects all of the evidence with regard to violations of the law and submits that to a deputy attorney-general and he proceeds to try the case. In some instances the facts in hand are not sufficient and he loses the case, but if a trained lawyer had collected the facts and been responsible for them that condition could not arise so readily at any rate. I believe there should be that division of jurisdiction.

That brings me to the point of registration. I think registration is of great value. I am a staunch supporter of it but am absolutely opposed to collecting a fee for registration for the purpose of enforcing the law. That has nothing to do with it and is giving the wrong impression to the public. The money we are paying is paid with the idea that we are defending our profession although it is in the interest of public health.

We are appropriating thousands of dollars in New York State for the protection of public health and money should also be appropriated to enforce the laws. It occurs to me that no fund can be more worthily appropriated by the state than one for the enforcement of the medical laws so far as the protection of the public is concerned.

Dr. J. B. Morrison (Newark): There is a quotation running through my mind:

"I doubt not through the ages,
One unceasing purpose runs
And the thoughts of men are broadened
With the courses of the suns."

It seems to me that's very applicable to Dr. Patterson's paper and the discussion that has taken place this morning. There has been a great broadening of our ideas in medical education and medical licensure during the last 35-50 years and we are making progress and are getting together and will reach a condition after a while where we will work in harmony even if we do have to wait for the slow process of the suns. I think the time is ripe for the medical board in Pennsylvania, the American Medical Association and the American College of Surgeons to get together and to adopt one classified list of recognition for medical schools and medical colleges and hospitals. When that is done the friction between these states, whether they are 2 or 3, or 6 or 7, will have been entirely eliminated. There must be some standard, some basis that will be acceptable to all of those bodies. I believe that the matter, so far as education is concerned, in regard to the cults, could be taken care of if these 3 bodies could examine the schools of osteopathy and of chiropractic all over the country

and classify them as they do our medical schools. If they do not rate up to our Class A schools their graduates could not be accepted for registration. That would eliminate the plea of martyrdom and unless that is done the trouble will always be present. Those of us who have looked into the matter feel that, apart from the osteopathic school here in Philadelphia, they have not a leg to stand on. However, there has been no such classification made and until it is done we will always be in hot water.

Criticism, to amount to anything, should be constructive and in Dr. Patterson's suggested board it seems to me, from our experience in New Jersey, that it should be maintained as a purely medical board. Dr. Patterson advocates the addition of a member of the osteopathic profession. I do not believe that should be done. In New Jersey we adopted such a measure and later on we were compelled to admit the chiropractors and they demanded a member on the board. Last year a bill was introduced in the legislature recognizing a member of the said board from the society of chiroprodists. The cosmetologists are seeking a separate board and will want a member on the state board of examiners. Those of you who have your skirts free had better keep them so and retain a purely medical board.

I cannot agree either with the suggestion from the doctor that the same yardstick should not be used in measuring all applicants who apply for licensure to practice the healing art, no matter what school they come from or what they believe. In the interest of public health they should all be measured by the same measure. The graduates of the chiropractic and osteopathic schools, and all other cultists, should be measured by exactly the same measure that we use for medical students.

My impression of the basic science laws was that the applicant showed that he possessed certain knowledge *prior* to his going up before the state board of education but that it did not eliminate examination. I may be wrong in that respect.

I believe the next amendment to the medical practice act in New Jersey will probably be the adoption of a Grievance Committee as worked out in New York. It seems to me that this committee which allows physicians to bring charges against one another and which allows members of the laity to prefer charges against the physician is a very great advance toward solution of these medical problems so far as the legitimate practice of medicine is concerned. I was very deeply interested in Dr. Rypins' report this morning, and when he shows that of 119 cases investigated in 3 years there were 93 convictions, he shows real work; and the fact that these cases are settled out of court, and the disciplinary measures are so effective, goes a long way to convince me of the great efficacy of this new medical practice act of New York.

With regard to the financial application of this law, we have never been able to convince the department of justice that it should appropriate money for the prosecution of illegal practitioners. We have been, perhaps, looked upon as a "medical trust" attempting to protect our own pockets. Four years ago we tried to pass an annual registration act in New Jersey and it would have gone over had it not been that the state board of medical examiners the year before had attempted to pass a similar act containing the statement that if a man failed to register they could revoke his license. That killed annual registration in New Jersey. It has been adopted now in 21 states and

I believe after a few years more we may be able to put it through in New Jersey.

I believe also that the New York bill has another excellent feature for medical men. We tried to pass that act also in New Jersey but could not do so because we had already recognized for chiroprodists the title of doctor-surgeon-chiroprodist. That was done because the only decent school of chiropody in America was in Philadelphia and we accepted their graduates with that title, so could not take it away from them. I think before very long these subjects that are separating us in the 3 states are bound to be ironed out and if this question of reciprocity can be settled it will be one of our crowning accomplishments.

Dr. William Pepper (Philadelphia): I subscribe to everything that my good friend Dr. Patterson has said with a possible exception, due to my lack of knowledge, of what he said about the basic science law. I am not opposed to it. I cannot say that I am in favor of it. I would just say that I do not know anything about it. I wish I had made the study that he has of the medical practice acts. He is to be congratulated on taking so active an interest in this study when he was on the commission which was appointed to study regulation of the healing art. He did not drop the matter when the commission ceased to function and now his views are those of an expert. I enjoyed very much hearing his paper and I subscribe to it heartily.

I feel that perhaps all I might say today would be a few words regarding my contact as a Dean of the University of Pennsylvania Medical School with state boards. We have for several years offered the use of our laboratories to the Pennsylvania board as a place to conduct their regular examinations and I have seen these hundreds of young men go through days of written examinations. I have more and more come to believe that there is a tremendous waste of time and effort in those examinations. I do not feel that every graduate of every school should be exempt from taking state board examinations, but I do feel that from the better schools, certainly, one might excuse say 95% of the graduates and save all that waste of time and effort. I have heard it proposed that instead of examining every student, for example, at the final examinations of the senior year in each of our Pennsylvania schools one or more members of the board might be present to see the examination, look at the papers, and study the past record of those students through their 4 years in medical school, and then arrive at a decision as to which men should be exempt from examinations. This question of exemption from examinations we utilize, and I imagine it is done in other schools also; a certain percentage of the class is exempt from a certain examination because those boys have shown in their work throughout the year that they know the subject, and I do not see why some such scheme could not be devised by state boards which would cut down materially the number of men they would have to examine. A man with a poor record, one who repeated a year, one who turned in poor papers, should be examined, but why examine the men who for 4 years have shown they could turn in good papers? Why subject them to 3 days more of writing papers?

The question of money for the carrying out of one of the duties of state boards, that is the prevention of illegal practitioners and the prosecution of them, etc., I agree heartily with those who feel that this money should come from the state. I do not see why the doctors in the state should be assessed to carry out that work. I ap-

prove of annual registration. I have seen instances where, due to lack of money, the investigation of alleged offenses of physicians has had to be held up. For example, a few years ago I was told that there was a young gentleman here in Philadelphia who had a University of Pennsylvania diploma, that he was treating patients and that there were prescriptions of his in drug stores. Posing as an Inspector of the Water Department, I got into his house and saw the diploma, which was a very good imitation. With an inspector who was furnished by the Pennsylvania board we seized the diploma. I thought we had put this one man out of business but soon afterward I heard that he was on the staff of the Philadelphia General Hospital as an assistant to Dr. Ludlam. I went over and asked Dr. Dohme if there was such a man on the staff. He said yes, that he had called on him the other day and showed him his card carrying an M.D. and office hours. I wrote to Harrisburg and asked if they could get after him. Unfortunately, the force was limited by lack of funds and weeks went by and nothing was done. I had asked Dr. Dohme to keep quiet about it until we could catch this rascal but finally he could stand it no longer and sent for Dr. Ludlam and the man was ousted at once. So far as I know, he has never been caught and I guess he is still at work. That is one of a hundred examples of how because of lack of funds and lack of personnel that sort of thing cannot be reached.

Another point of contact I have had with the state board, wherein I would like to mildly criticize the literal interpretation of the law; living up to the letter of the law rather than the spirit of the law. We have had 1 or 2 examples where we have called a man to a teaching position from outside the state, a man who for 10 years has practiced and taught as a specialist, say in dermatology, and then we found that he had to put in a certain number of weeks in obstetrics and deliver a certain number of women before he could get a license to practice in Pennsylvania. It is rather discouraging to a man of middle years who has been recognized as a specialist and has been teaching in that specialty and who I would be willing to bet would never engage in obstetrics, to send him to a hospital for 6 weeks and have him deliver a certain number of women. That is the law and it is perfectly right for the board to say "he may take up obstetrics later", but there is so little probability of that and too much attention to the letter of the law.

Now, I have been much interested in the New Jersey and Pennsylvania differences of opinion about hospitals and I am more pleased than I can tell you to hear that there is such a likelihood of ironing out those difficulties. There again I think it is an interpretation of the wording of the law and it is very hard to get around that. I can see the difficulties on both sides but they ought not to be insurmountable.

I like the idea that we have heard spoken of by Dr. Rypins about his Grievance Committee in New York State. I think it would be an ideal thing in Pennsylvania. Speaking as a dean of a medical school, we have gotten along very well with the state boards, not only of the Tristate Conference but all over the country and have no real criticism to make of any of them. I must say that the discussions I have heard here today have given me a high opinion of the seriousness with which you of the Tristate Conference are considering these problems and the amount of study that you have given to them. I used to think sometimes that the state boards years ago did

not really make serious efforts to comprehend the whole complicated problem of education and licensure but the more I attend this sort of meeting the more convinced I am that you are doing your very best and those of us who are in the educational field want to congratulate you and thank you for all you have done.

Dr. William Pearson (Philadelphia): Obviously, I represent a minority in medical education, representing the homeopathic branch of the school of medicine. The chief criticism I would have of Dr. Patterson's proposal is that absolutely no recognition whatever is suggested for the homeopathic school. We in Pennsylvania represent approximately 10% of the physicians. We have our own state society which is very flourishing and a fine organization. There is no question in my mind that my colleagues would criticize me were I not to mention this apparent oversight.

I have been in perfect accord with the general proposition of revising our medical laws and, as Dr. Patterson has very forcibly brought out, it is a thing that should be avoided to subject all our graduates of all the schools to these searching examinations. The examinations in our various medical schools are unquestionably more searching in the 4 years, and particularly in the senior year, than can possibly be given in the short space of a very few days.

It was my pleasure a few days ago to hear Dr. Lewis, President of LaFayette College, speak on the educational system as a whole following the law of supply and demand. I am confident that the general statements he made will apply to medical education as well as to the entire field of medicine. We are in this age, and have been for a number of years, engaged in mass production. The entire country—and I am not an economist—is suffering today from overproduction and all you need to do is to watch the newspapers to see that we have 25% more production than we can consume in this country. The problem is to find markets for our products. In medical education that is not comparable, but until the present time and probably for a good many years to come the demand for graduates is greater than the supply. The difficulty as I see it, and I think that has not been brought out in this discussion but which I think is of vital interest to the state board, is furnishing adequately trained physicians to the locations where they are most needed. All of us who are engaged in college work receive letter after letter from chambers of commerce and mayors and influential citizens of small towns requesting us to send physicians to their respective communities and telling us how great the need is for general practitioners of medicine. That particular field has evidently been quite neglected, although we all appreciate that the young man who has been trained in our modern medical college has no desire to bury himself in some cross-road town. Also, as one of the gentlemen brought out, we have a great increase in the number of specialists. It seems to me that this body, representing the state boards of 3 important states, should also concern itself with the general problem of distribution of physicians, as well as the problem of licensure and selection of the properly trained individual. So, very briefly, I would merely add to the suggestion of Dr. Patterson that the homeopathic school of medicine be represented in these plans for a revision of the various laws. We represent a respectable minority in the practice of medicine and I am happy to say that the whole tendency at the present time is to become more tolerant rather than to express the opinions of our fore-

fathers in medicine who condemned without any hesitation anyone who failed to agree perfectly with their particular ideas. The Homeopathic School of Medicine, as you know, was organized by the very best brains of the medical profession and, as William Mayo said without any hesitation, the crime that Samuel Hahnemann suffered was in being born 80 years before his time when he proposed a system of therapeutics which was not in accordance with the customs of the particular time but which has been shown unquestionably to be in accordance with the best theories of immunology and scientific medicine at the present time. So, I say there is no need to apologize because we happen to have a little bit different opinion in regard to the application of drugs. Our students are as well prepared to practice general medicine, are perfectly aware of their responsibilities, as the graduates of any other medical school, so naturally we are entitled to proper consideration in these proposed plans.

(Recess for Lunch)

AFTERNOON SESSION

Dr. Paul Correll (Easton, Pa.): I appreciate the privilege of attending this conference and being invited to participate in the proceedings. My relationship to the question under discussion has been to the legislative rather than the educational aspect, however. I have felt satisfied, and Dr. Rypins' remarks convince me fully, that the medical schools can be trusted to turn out a satisfactory product—physicians ready for licensure.

I do not agree with Dr. Jennings regarding impracticability of enforcing the law. I believe we could clean up Pennsylvania in 6 months if we had the funds with which to prosecute irregular practitioners; and we must clean our own house, get rid of the regulars who are guilty of misconduct, as well as attack the cults. I am sure the Pennsylvania Medical Society would welcome a Grievance Committee. We need, too, to have our law amended and made so definite that there will be no bickering over the crossing of a "t" or the dotting of an "i", for we not only have had differences with the New Jersey board but have had differences of opinion among ourselves.

Dr. Morrison: Before we proceed further I move that the Secretary be instructed to send messages of sympathy to Drs. Vander Veer and Donaldson, absent because of illness, and to Dr. Sadtler who has been so regularly with us.

Dr. Sharpless: The motion has been adopted.

Dr. Harry W. Mitchell (Warren, Pa.): A word as to the investigation. There are some problems there which I think Dr. Rypins presented very ably and kindly and usefully for the profession. He would divide the irregularities of physicians into 2 groups—crimes and misdemeanors. The misdemeanors are handled by the committee; the crimes, which are punishable by law, are very properly turned over to the department of justice. But to what extent Dr. Patterson would have these investigations made by the board which he proposes, and to what extent the attorney-general or his office would take action in suppressing many of the crimes, I do not know. That I should think would be a point of very delicate consideration and require a great deal of thought. In this state it is almost impossible, in many instances, to get a conviction if the people of the community have an idea that the medical society is making the investigation of a man simply to get rid of a disagreeable competitor. It

would be almost impossible to get a jury verdict, and if so the judge will name a small fine and the man will go home and laugh at the doctors, and the community will support him. Our law must be drawn with such care, precision and fairness for all persons who practice the healing art that it will win the support of the right thinking members of the community. I should think any person practicing any branch of the healing art should have an elementary education and that the schools for professional training would have to be adjudged by the medical schools of today by someone whose opinion would be final, and would not leave the onus upon the medical profession, as many people think of as trying to rid the town of competitors.

I was pleased to hear Dr. Kelley say that in the difference of opinion which had unfortunately existed between Pennsylvania and New Jersey, that New Jersey had settled it. At first I could not help thinking that when 2 people disagree it is elementary logic to say that neither can decide it for the other, but he supplemented his statement by saying that they had appointed the American Medical Association as a third person and that New Jersey was holding out the olive branch to Pennsylvania to receive the licensure from any well regulated hospital with a suitable medical degree that would apply in Pennsylvania. Now it would seem as if the law in Pennsylvania would not bring about a similar fair decision and that that law should be changed in some way. I am told by Dr. Albertson that the A. M. A. has sometimes used poor judgment in this state, in his opinion, by failing to give approval to a good hospital and to others not so good it has given its sanction. I should think it would be very easy for the well-meaning people of New Jersey and Pennsylvania to get together, go over the list of hospitals and cross out any which they could not approve, which would do away with this rather unpleasant situation for the young man who wants to practice.

Dr. Ross Patterson (Closing): First of all, let me say that I do not come before this conference in the guise of an expert and I do not wish to pose as such. My paper was prepared all too hurriedly; in fact, it was not possible for me to give it lengthy consideration, to revise it or even to complete it. A good deal of that which I have said I myself regard as tentative. It was intended to be provocative of discussion and in that respect it has succeeded, I consider, admirably well. I am indeed grateful to all these gentlemen who have come here and have given us their points of view and the benefit of their thoughts upon these matters. I am rather surprised that there has been so little difference of opinion and no more divergence of thought about a number of matters that were touched upon in my incomplete paper.

There are just a few comments that I wish to add more by way of clarification than anything else. In the first place, let me say that I had no thought of making any suggestions either to New Jersey or to New York in the matters concerning their own medical practice acts. Rather, I hoped to get from them, as turned out to be the case, the benefit of their own experience. We all know of the splendid work which Dr. Rypins has done in New York and we know that in New Jersey they are being very successful in their handling of the problem of restricting certain practitioners to the limits of practice for which they were licensed.

Dr. McBride touched upon the question of the same preliminary requirements for all those admitted to any form of practice. I am sure that I disagree with him. The thought I had in mind in suggesting a composite board was if possible to bring in the osteopaths, for instance, into the board and get their cooperation rather than their opposition, which might help solve some practical problems. If that is to be done it could be done only with an understanding that the same requirements of preliminary education should not apply to osteopathic schools as are applied to medical schools. Theoretically, I would be in favor of exactly the same requirements. Practically, I am not sure that I would hold out for that. It might work, for instance, very well to give a general board broad powers, to let it specify that those admitted to the practice of osteopathy might have enforced against them only 1 year of college work, whereas those admitted to unrestricted practice should have a requirement of 2 or 3 years. Theoretically, I can see that the requirements should be the same, but if a composite board is to be formed it would be necessary to concede something in the matter of preliminary requirements. I think that is a debatable point.

Dr. Rypins' discussion brought out very well a matter that is in my mind, and that is the improvement of conditions in the practice of medicine. I think one of the most important works before organized medicine is to see to it that standards of practice and ethical standards in the profession are kept on a high plane. Before we are in a position to argue with others as to their practices we must be sure that our own house is in order. The work of the Grievance Committee must be very helpful in that way and must accomplish a great deal of good in elevating medical ethics and the standards of medical practice.

To Dr. Kelley I want to say that I had no intention of sitting in judgment upon the merits of the controversy, if one exists, between Pennsylvania and New Jersey. That is a matter that should be settled between the boards themselves and I did not intend to express approval or criticism of either board, but merely to call attention to the fact that there is a difference of opinion and it would seem that it should be settled. My practical experience grows out of the fact that in a number of instances the graduates of the school of which I am the dean, who have served in hospitals the standings of which cannot be questioned, have met with some difficulty in securing licensure in New Jersey. That was several years ago, however, and I know of no instance lately, but the impression still prevails among certain students that they may encounter difficulties.

As regards the registration of physicians, I have thought about that a great deal. It seems to me that the middle ground is perhaps the best, to have a fee paid for registration, at least to cover the cost of the registration itself; the publication and distribution of the register; and perhaps it should go no further than that. It is perhaps doubtful if the state itself would be willing to pay the expenses of registration and the preparation of a register, its publication and distribution. As a matter of fact, is it practical to require physicians to register unless they are required to pay at least a nominal fee? Perhaps the present fee is satisfactory but the advantages of registration seem to me so great that the theoretic objections to it, at least based on a small fee, do not weigh heavily.

Dr. Pepper's discussion brings out the importance of not including in a medical practice act too detailed specifications and requirements; that it is better to have the act itself fall down in its provisions than that it should confer upon the administrative board very broad general powers. As an example of the extremes to which medical boards have gone in the past with regard to inclusions of specifications, I might cite the medical practice act of the state of Utah of a number of years ago into which was incorporated the so-called model curriculum of the American Medical Association, in which with circumstantial detail was set forth the requirements of the medical course, the number of hours which should be given to each subject, the number of hours for lectures and for laboratory work in each specialty. That to me is an absurdity of extreme degree but it shows that there must have been at that time, not only in that state but in others, a wrong idea as regards the medical practice act. We have in our Pennsylvania act today a provision which is a dead letter, unless it has been repealed, with regard to military service. In the enthusiasm and the distorted point of view that prevailed at the outbreak of the war there was incorporated into the medical practice act a provision that every man admitted to licensure must have received military training. That is an example of inclusion of specifications that should be left to the adoption of rules by the advisory board.

My friend, Dr. Pearson, has raised a question which was not at all in my mind. I am in absolute agreement with what he says, that there should be on any board in Pennsylvania representatives of all graduates who have any considerable interests at stake, but I do not believe that it is wise to specify in the act that there should be regular practitioners or those representing homeopathic or osteopathic schools, or any specifications of any kind. I feel, as he does, that in the organization of such a board there should be in the membership representatives of each branch of medicine. Perhaps there ought to be a representative of the graduates of most of the schools. It makes for better cooperation and understanding and support of the law, but it seems to me that the elimination of all specifications is wise. I feel that the provision in the present law excluding those attached to medical schools from membership in that board is not in the best interests of the work of the board. I think, on the contrary, that there should be on that board someone who would broadly represent medical education. I care not from what particular medical school he would come. I could name a half-dozen of my friends in other medical schools that I would support with the greatest cordiality for such an appointment and would feel that all the broad interests of medical education would be represented to the advantage of the board itself and to the advantage of the medical profession in Pennsylvania.

It seems to me that one of the chief advantages of more or less automatic granting of licenses to those whose qualifications can hardly be questioned as regards recent graduates of first grade medical schools is that it makes it possible to examine the questionable group by a far better examination than the one now held. If examination is restricted to those of doubtful qualifications, its character might well be altered, having for its object the careful testing of those of doubtful abilities who concentrate on that particular problem. The graduates of foreign schools,

the older graduates, graduates of schools now out of existence, might very well have an examination to test their qualifications for the practice of medicine, perhaps putting aside somewhat their knowledge of the theory of medicine and the knowledge of the fundamental branches.

We have had a good deal to say about cultists and the reason for opposing them. Perhaps a great many of those who oppose cultists do so without thinking out very clearly the reason for their opposition. To me the chief reason for opposing the licensure of cultists is that they cheapen the practice of medicine; they lower the tone of practice of all kinds; they lessen the pride that we have in our membership in a profession which practices a form of the healing art. If we are to retain intact the ideals of the profession and to preserve its knowledge and hand it down to our medical posterity we must be sure that it is not contaminated and diluted by the injection of irregular and unsound forms of practice by those of little general education and whose technical training, if you could call it such, is wholly bad.

Again I repeat, Mr. Chairman and Gentlemen, that I am very grateful to you for coming here and giving consideration to these problems. I have gained a great deal of information and if I were now to rewrite the paper which I presented I should change a number of its provisions.

Dr. John J. Jennings (Brooklyn): I had not expected to discuss this paper twice nor do I think I have very much to add to what I have already said except to perhaps make a little clearer one or two of the things which I had tried to say. What I meant to say, essentially, was that it appeared to me that the problem of licensure depended not only upon the proper ratification by the governing bodies of the state of the fitness of the individual to practice medicine, but that it should also to some extent at least take cognizance of the fact that the changing necessities and changing adaptations of the provisions to practice need to be recognized; that the medical profession in its relation to the public is on trial; that the defense against such trial depends very largely upon our educational bodies in the preparation of students for actual practice. It is the tendency of academic bodies to segregate this somewhat from the actual necessities and demands of practice as such. Some coördinating body seems necessary in some of our states. In the department of education one of your functions is that of granting licenses and it is to be hoped that things might be reversed so that the boards of licensure might be ahead of the departments of education rather than 25 years behind.

You know how much I appreciate the cogent and clean-cut paper which Dr. Patterson has presented and I hope he understands that I entirely appreciate his statements and how I only hoped I might put his ideals one degree higher.

Dr. Reik: Dr. Morrison turned over to me a letter received from Dr. Olin West, General Manager of the American Medical Association:

"March 6, 1930

Dear Dr. Morrison:

At the Portland Session Dr. William Allen Pusey introduced a resolution that was adopted by the House of Delegates providing for the compilation of 'a comprehensive statement for the guidance of the American Medical Association concerning the practice of medicine by corpora-

tions, by clinics, by philanthropic organizations, by industrial organizations, and concerning the relationship of physicians thereto'.

The Judicial Council has given this matter its very careful consideration and finds that the task assigned to it is one of tremendous scope. It seems to be apparent that the Council cannot prepare, in time for presentation at the annual session to be held in Detroit, any statement that will thoroughly cover all of the subjects embraced in the resolution.

The Council is anxious, however, to be in position to submit a statement that will be presented as a sort of progress report and desires to make its statement as inclusive and as helpful as possible. To that end I have been instructed by the Council to write to a number of outstanding men in the profession to ask their views with respect to the various matters with which the resolution is concerned. It is the purpose of the Council to use this material in the preparation of its report to the House of Delegates.

I can assure you that any statement that you will offer will be sincerely appreciated.

Very sincerely yours,

(signed) Olin West"

That resolution was referred to the A. M. A. for consideration and they will not make a report this year at the annual meeting but will consider it for another year. This letter was sent to Dr. Morrison as a representative of the profession and he modestly wrote Dr. West that he was turning it over to this conference with the hope that we might give it some consideration.

Dr. Patterson: Isn't it a little out of line with the purposes of this organization?

Dr. Reik: I think Dr. Morrison's idea was that this organization, representing so large a slice of the profession, about 20% of all the doctors in the country, might present views that would be more authoritative than the views any one individual could give.

Dr. Morrison: In conversation with Dr. West I have learned that he is very keenly interested in the procedures of this conference. He has been hoping that the time would come when we would broaden our scope, representing as we do 25% of the medical profession of America, and seek to outline legislation, that we would become a potent factor perhaps in giving opinions on medical subjects of interest to the whole profession, so, when he wrote me this letter asking Dr. McBride's and my opinion it seemed to me that here was an opportunity to show Dr. West that we might help in a broader field.

Dr. Patterson: Then I would move that a subcommittee be appointed to consider the question.

This motion was duly seconded and carried.

Dr. Sharpless appointed Drs. J. B. Morrison, George M. Fisher and Frank C. Hammond.

Dr. Reik stated that the next place of meeting would, according to custom, be in Atlantic City, New Jersey, sometime in late October or early November, and he extended an invitation from the New Jersey Society to that effect.

Dr. Sharpless, on behalf of the other members of the conference, accepted the invitation and stated that the program would be left to the New Jersey members, according to the plan followed heretofore.

Adjournment at 2.45 p. m.

Woman's Auxiliary

REASONS FOR WOMAN'S AUXILIARY

(Reprinting a communication issued by the Woman's Auxiliary to the Iowa State Medical Society.)

Joining and taking an active part in the Woman's Auxiliary could very well be ranked as the first activity which any physician's wife should assume outside her home. The immediate welfare of physicians and their families and the future of medical practice depend upon what the public thinks and does with regard to medical practice and health activities. Organized medicine exists largely for the scientific advancement of its members, the betterment of the profession, and proper guidance of health activities. Except for scientific education, practically every purpose of organized medicine can be as well, or better, accomplished by a woman's auxiliary than by a medical society itself. Some of these activities are:

PROMOTE FRIENDLINESS

In many localities where the Woman's Auxiliary has undertaken little but social activities, great results have been accomplished. Social gatherings have resulted in better acquaintance and greater friendship among physicians and their families and increased the solidarity of the profession. Where the wives have held a meeting at the same time the medical society held a scientific session, the attendance at the medical meeting has been surprisingly increased.

GUIDE HEALTH ACTIVITIES

It is generally true that physicians' wives are, or can easily become, active in the public health programs of the various lay organizations whose work is everywhere impinging upon medical practice. These lay health organizations accomplish great good both for the public and the profession, and auxiliary members can very easily see to it that the various lay activities with which they are connected are conducted in a way that meets with the approval of the physicians in their county. In this way a possible liability can easily be turned into a tremendous asset.

HEALTH EDUCATION

One of the favorite forms by which quackery propagates itself is through lectures offered to women's clubs and other lay organizations. The Iowa State Medical Society has a speakers' bureau which can send qualified physician speakers to any or all lay meetings. The members of the Woman's Auxiliary could very easily eliminate faddists as club speakers and also find dates for members of the state society speakers' bureau. Lay education of this sort will destroy the cults faster than any laws.

OTHER ACTIVITIES

The auxiliaries in Iowa and over the country have entered into a variety of other activities. These depend upon the needs of the local community, as well as what the collective membership may be disposed to do. Some of these community services are: Aiding hospital, sewing and so forth for indigent sick, promoting county health unit, directing or promoting special health activities. In 2 or 3 societies the auxiliary is making a great contribution to the annual session by acting as hostess at the banquet.

OPPORTUNITY

Please notice that the first 3 activities outlined above are not in themselves burdensome. They will not make great demands upon the time of the individual members. Since the physician's wife is generally, by virtue of her position in the community, already active in social and health organization, it follows that the program outlined above will not mean an increase in duties and responsibilities but merely the coördination of those community enterprises, the proper conduct of which is so vital to her husband's success, to the future of the profession, and to the welfare of the community.

Burlington County

Reported by Mrs. John S. Conroy

The Woman's Auxiliary to the Burlington County Medical Society recently gave a Luncheon in the Riverton Country Club, to 75 members and guests.

After the luncheon, our president, Mrs. R. E. Haldeman, presented Mrs. Walter Jackson Freeman, daughter of Prof. W. W. Keen, who gave a most interesting talk on the county activities of Pennsylvania. Mrs. Marcus W. Newcomb read a very interesting paper on "Medical Legislation". The state report to the National Convention at Portland, Oregon, was read by Mrs. E. R. Mulford, who was a New Jersey delegate to the convention.

Three vocal selections were charmingly rendered by Mrs. Howard Curtis, of Moorestown, with Mrs. Walter Pew at the piano.

The May meeting was held at the summer home of Mrs. Lyman Hollinshead, Medford Lakes, in the pines. After a short business meeting the members enjoyed horseback riding and bridge.

Essex County

Reported by Mrs. Richard M. Rogers

The final meeting for the year was held on May 26 at the Nurses' Home of the Newark City Hospital, and was probably the longest and most interesting one of the year.

The guest speaker, Mrs. A. Haines Lippincott, was presented, although she needs no introduction to our members, since her advent is always one of very much interest to all of us. Her topic was one on which she is especially well able to talk, that is, legislation. Among many other things, she showed the part that the auxiliary had played in suppressing legislation which would enable the chiropractors and their like to extend the scope of their work on an ignorant and misinformed public. She gave a brief but very complete outline of the course a bill must take in the legislature. Then she gave a most interesting explanation of jury impaneling and her impressions, and brought very clearly to our attention the many abuses with which the present system is involved.

Mrs. Theodore Teimer, Recording Secretary, read the minutes of the preceding meeting and Mrs. Charles Rich gave her report as Treasurer which showed a balance on hand of \$503.70.

Mrs. Don Epler, Chairman of the Committee on Health Education, gave a brief report of the visit to the House of Detention and the Newark Jail in which she brought out the fact that both places are a disgrace to the city in that so little

is done for the inmates. She stated that the jail was so overcrowded that 80 men were sleeping on the floor. In the House of Detention prisoners and those held as witnesses were housed together and no attempt is made to give them work to do or was there even any reading material available. She also announced that on Tuesday morning, June 3, a visit would be made to the insane asylum at Overbrook.

Mrs. Schneider, Chairman of the Committee on Legislation, reported that the Contemporary of Newark had extended an invitation to her as chairman of our committee to serve ex-officio on the similar committee of that group.

Mrs. Harry Commando, although not present, had sent in her report as Chairman of the Committee on Hygeia. In this connection, Mrs. Van Ness offered a suggestion that a slip drawing attention to the fact that our committee chairman would receive subscriptions to this magazine be mailed out through the Essex County Medical Society to every doctor. This was put in the form of a motion and was passed as such.

Mrs. Samuel Jessurun, Chairman of the Scholarship Committee, stated that plans for the founding of a scholarship to be called the Women's Medical Auxiliary Scholarship Fund, had been presented to the Advisory Board and had met with enthusiastic support. The present plan calls for an immediate deposit in some savings bank of \$100 to be taken from the treasury which will be supplemented by \$150 more to be raised in the autumn by means to be devised by this committee.

Mrs. G. A. Rogers, Chairman of the Child Welfare Committee, outlined the work which is to be done in cooperation with the Y. W. C. A. As reported previously, this work is to consist of a series of lectures on parent training in the care of infants. Classes of 12 each will be instructed twice a week by Mrs. Maud G. Fenton, who is a registered nurse, an experienced teacher and the mother of 2 healthy babies. Early in October a course in child training for the mothers and fathers of adolescent children will be given and will be conducted in the form of popular lectures to be given by educators, physicians, psychologists and psychiatrists. These courses are to be financed by the Y. W. C. A. but directed entirely by the auxiliary and in the case of the first mentioned course we are furnishing the equipment necessary. At the present time some 20,000 circulars have been printed and are being distributed.

Mrs. Van Ness read a letter of enthusiastic approval of this work from Mrs. Nancy DePew, head of the Educational Committee of the national organization. Many counties have signified their desire to take up this work in their communities, which is indeed pioneering as far as Essex County is concerned.

The question of expending money for printing the handbook for instructors in this course was brought up and a motion was made to have 100 copies printed and because of the very considerable expense which this would involve to charge \$1 per copy to any auxiliary that might wish to have a copy.

The Advisory Board has presented for our consideration the problem of what can be done for the child whose mother has to go to the hospital. Mrs. Van Ness drew attention to the fact that in some sections they have what is called a Mother Agency. However, this problem will be left until autumn.

The Recording Secretary read the Constitution drawn up by the executive board, which was approved and accepted by the auxiliary.

The Nominating Committee, by Mrs. H. J. F. Wallhauser, presented its slate for the October elections.

Preceding the meeting the Executive Board and Mrs. Lippincott had been guests of Mrs. Van Ness for luncheon at the Hotel Riveria.

Gloucester County

Reported by Mrs. Henry B. Diverty

The Woman's Auxiliary to the Gloucester County Medical Society gave a tea in honor of doctors' mothers, May 14, at 2.30 p. m., at the home of Mrs. David R. Brewer. The mothers were well represented and members of the auxiliary from all parts of the county were present.

Mrs. Downs, the President, introduced the speaker, Mrs. Freeman, of Philadelphia, who is the widow of a physician, has 2 sons who are physicians, and is the daughter of America's celebrated surgeon, Dr. W. W. Keen, of Philadelphia, who has reached the age of 92 years. Mrs. Freeman represents her state in the interest of doctors' widows.

Mrs. James Hunter, of Westville, President of the New Jersey State Medical Auxiliary, addressed the meeting. Mrs. Freeman was guest of honor at a luncheon given by Mrs. Brewer preceding the tea. The luncheon and tea both proved to be very delightful social affairs.

On Friday, May 23, the Woman's Auxiliary was invited with the doctors of the county to Skillman, the home for epileptics. Dr. Renner gave us a hearty welcome and told of their buildings, acreage, etc.; took us on a tour of the farmland and showed us the new buildings and the kind of work done by inmates.

Dr. F. C. Hammond, of Philadelphia, made an address on "Medical Ethics", which was helpful indeed and greatly appreciated.

After the meeting, all were served with a very bountiful platter supper. Dr. and Mrs. Renner made all welcome and the trip was a very profitable and pleasant one.

Ocean County

Reported by Mrs. Herbener

A meeting of the Woman's Auxiliary to the Medical Society of Ocean County was held at the residence of Mrs. V. M. Disbrow, 315 Madison Avenue, Lakewood, on Thursday, June 5, at 2.30 p. m. The following were elected to office for the ensuing year: Mrs. Frank Denniston, President; Mrs. V. M. Disbrow, Vice-President; Mrs. Eugene G. Herbener, Secretary; Mrs. Alfred Woodhouse, Treasurer.

Following delegates and alternates were elected to attend the State Convention at Atlantic City: Delegates, Mrs. V. M. Disbrow, Mrs. Frank Denniston and Mrs. Eugene G. Herbener; Alternates, Mrs. F. N. Bunnell, Mrs. Ralph R. Jones and Mrs. Alfred Woodhouse.

Sussex County

Reported by Mrs. Leo B. Drake

A meeting of the Woman's Auxiliary to the Sussex County Medical Society was held at the home of Dr. and Mrs. B. W. Roy, on Wednesday even-

ing, May 28; there were 10 members and 2 guests present.

Mrs. Hood sent word that Hygeia had been placed in the Trenton schools. Mrs. Harp reported that Hygeia had been received by the Sussex schools. Mrs. White reported that a delegation went to visit Glen Gardner and enjoyed it so much that others have decided to go in September.

A motion was made and seconded to send \$5 to the annual meeting fund. The meeting on June 19 is to be at the home of Mrs. H. D. Van Gaasbeek, at 3 p. m. The mothers of the doctors are to be our guests.

The meeting adjourned and we were delightfully entertained by Mrs. E. C. Taneyhill, explaining her work as Field Secretary.

Delicious refreshments were served.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

A banquet to celebrate the Fiftieth Anniversary of the founding of the Atlantic County Medical Society was held May 9 in Haddon Hall, Atlantic City, with 105 members of the society, the Woman's Auxiliary and guests attending. The following invited guests were present:

Dr. Andrew F. McBride, President, State Medical Society of New Jersey; Dr. J. Bennett Morrison, Recording Secretary, State Medical Society; Dr. Duncan Campbell, President Gloucester County Medical Society; Reverend and Mrs. Walter Bruggeman; Judge Robert H. Ingersoll, Vice-Chancellor, State of New Jersey, son of a charter member of the society; Mrs. Robert H. Ingersoll; Mr. Richard H. Robertson, President Atlantic County Bar Association, and Mrs. Robertson; Dr. E. H. Harvey, President Atlantic City Rotary Club, and Mrs. Harvey; Mr. Richard Swift, President Atlantic City Kiwanis Club, and Mrs. Swift; Mrs. Samuel Barbash, President Atlantic County Historical Society; Dr. Clarence L. Steigerwalt, President Atlantic County Dental Association, and Mrs. Steigerwalt; Mr. Hugo Krause, President Atlantic County Pharmaceutical Association, and Mrs. Krause; Mr. Albert H. Feyl, President Press-Union Publishing Company, and Mrs. Feyl; Mr. Francis E. Croasdale, Vice-President, Press-Union Publishing Company, and Mrs. Croasdale; Mr. and Mrs. M. V. B. Scull, Mrs. Scull being a daughter of a charter member; Miss Nellie McGurran, R. N., Superintendent Atlantic City Hospital; Miss Elsie Casperson, R. N., Superintendent of Nurses, Atlantic City Hospital.

The menu card contained photographs of the 8 charter members of the society: Drs. Job Brad-dock Somers, of Somers' Point; Theophilus Boyesen, of Egg Harbor City; Edmund H. Madden, of Absecon; W. Boardman Reed, of Atlantic City; Denman Bevis Ingersoll, of Mays Landing; Talcott P. Waters, of Absecon; Benjamin T. Abbott, of Mays Landing and Tuckahoe; Willard Wright, of Absecon and Atlantic City.

Grace was said by Rev. Walter Bruggeman. The invited guests were introduced by the president, Dr. Homer I. Silvers, who then introduced the speakers of the evening.

History of Medicine in Atlantic County Prior to 1880

Dr. William J. Carrington

Henry Hudson was the first European to set foot on that part of the new world later to be known as New Jersey. Because of this, the Netherlands claimed ownership and made settlements under Peter Stuyvesant in the north, and Cornelius Mey in the south. Cape May and Mays Landing both derive their names from this doughty Dutchman. England had never abandoned her claims based upon the discoveries of the Cabots, in 1498, but it was not until 1664 when spurred by their Dutch rivals they began colonization. That year, Charles II made extensive land grants for purposes of settlements. Dr. Daniel Coxe, of London, was physician to the King. Somehow, either by purchase or as a royal professional fee, Dr. Coxe came into possession of 95,000 acres of worthless South Jersey land. But in 1688 he had it surveyed, sold off parcels, and made a handsome profit. He did not retire in his affluence but continued practice as physician to Queen Anne.

All of this, of course, has nothing to do with the practice of medicine in Atlantic County. Indeed, in the early days there were no doctors. It is likely that the early settlers consulted the medicine men of the Lenni Lenapes, a tribe of the peaceful Delawares, although there is no record of such consultations. We do know that our forefathers used the cathartic, diuretic and diaphoretic herbs of the nomadic aborigines.

The earliest history of South Jersey was written by a garrulous gentleman by the name of Gabriel Thomas, in 1698. "Of lawyers and doctors I shall say nothing", he wrote, "because the country is very peaceful and healthy. Long may it so continue and never have occasion for the tongue of one or the pen of the other, both equally destructive to men's estates and lives." But doctors were needed and brave ones came. The early history of medicine in Atlantic County is the biography of these sturdy, self-reliant and self-sacrificing pioneers. The records are fragmentary and incomplete. Time will not permit reference to them all. It will give a clearer picture of events if we review all that is known of a few, rather than something of them all.

The first physician who thought about settling in South Jersey was Dr. John Gordon, of England, but his brother Charles who lived here in Nove Cæsare, as New Jersey was then known, discouraged him: "If you desire to come hither", he wrote, "you may come as a planter or merchant, but as a doctor of medicine I cannot advise you, for I hear of no diseases to cure, but some agues and some cutted legs and fingers."

Nevertheless, by the year of 1766 there were enough doctors in the state to form the Medical Society of New Jersey, the first state society in all America. At that time, that part of New Jersey later known as Atlantic County had 1 resident physician. Just the year before, an Irish man by the name of Dr. Richard Collins purchased land near Port Republic, later known as Collins' Mills, and settled there in the wilderness. He made a clearing, built a home and sent back to Ireland for his wife. After repeated attempts to hear from her, believing her dead, he married a Miss Griffin, of Pennsylvania. The wedding bouquet was scarce wilted before he received word from his first wife that a blind daughter had been born after his departure for the New

World, and that she and the daughter were now on the way to join him. What would you have done? He seems to have done the honorable thing. He provided for his first wife and lived with the second. He was a Roman Catholic, but settling among Quakers he soon adopted their dress, their speech and their prosperity. Speaking of 3 sons by his second marriage, he said: "I have raised one a Methodist, one a Quaker and one a Universalist, but some of these days I will make a short cut and beat them all to heaven." And that is about all we really know of Richard Collins, doctor of physic and surgery, the first resident physician of Atlantic County. Where was he educated? What books and instruments did he have? What methods of diagnosis did he use and what was his therapeutic armamentarium? With all due respect, it is likely that he knew less than a chiropractor or a drug clerk of today.

It is possible to describe the tides about Atlantic City in 1765, although we have no record of them. They are merely local manifestations of great oceanic movements. By the same token we know some things of Dr. Collins. He made his diagnoses by inspection, palpation and intuition. He lived, remember, 50 years before Lænnec had given the world auscultation. He had no stethoscope, not even a thermometer. Fever was estimated by the laying on of hands. The Peruvian Countess of Cinchon had been cured of malaria, and Dr. Collins doubtless had cinchona bark in his saddle bag, along with squills, blue-mass and castor oil. Diseases were sthenic to be bled, or asthenic to be fed. Medicine in those days was a jumbled mass of fanciful hypotheses, a confusion of metaphysical theories, long since forgotten. Dr. Collins could reduce hernias, set bones, open abscesses, and sew cuts after a fashion, though this was a whole century before Koch, the medical Galileo, published his monograph (1878) on wound infection. The roads were dusty, the patients scattered, and mosquitoes were terrible, but there were compensations; there were no radios, crossword puzzles, specialists, or anti-vaccinationists. Jenner had not yet set his discerning eye on Sarah, the milkmaid with cow-pox.

What about the home life of Dr. Collins? I can picture his home, like the more prosperous of his times, with 4 walls of clap boards held together with iron nails hand wrought in his own blacksmith shop. The roof was of cedar shingles, and windows of oiled paper. I can see him in homespun shirt and leather breeches, sitting before an open fire in the low raftered living room, after a day of rounds on horseback, mending his son's shoes. The boys are moulding shot. Mistress Collins is busy at her loom weaving linsey by the light of a fragrant bayberry candle, homemade, with its wick woven from the silk of milkweed pods. As the evening wears on they grow hungry. They cannot send one of the boys over to the delicatessen; instead he fetches a homemade basket full of oysters from the shed where they are always kept ready to be eaten. Before the feast is spread, comes the inevitable night call; someone wants the doctor at once. A fisherman in the furthest of the 3 shacks on Absecon Island cut his foot that morning while caulking his boat. They cannot stop the bleeding. There is no young ex-intern to send. It is up to the doctor. When he arrives the patient is exsanguinated, but he bleeds him some more for luck. This was a hundred years before the hemostat was devised. There were no kindly ligatures. Dr. Collins did what the practice of the times prescribed; stopped the bleeding by pouring boiling oil into

the tender wound and bound it up with a homespun linsey woolsey bandage. His fee? A mess of clams next Spring!

The next medico to pass in pageant-like review before us was Dr. Ezra Baker who moved from Tuckerton to Absecon in 1799. He was elected to Congress and later served as Collector of the Port of Great Egg Harbor, from 1813 to 1817. The next year he moved out West and grew castor beans on the banks of the Wabash. He and his sons became wealthy, and it is likely that his castor oil did more for mankind than his legislative enactments in Congress.

The father and founder of Atlantic City was a doctor who lived and practiced in Absecon for 40 years. In 1854, when Atlantic City was incorporated, there were but 6 small unpainted shacks on Absecon Island. The fisherman, clam diggers and beach combers who lived in them grew corn and livestock on the island. The nearest physician was Dr. Jonathan Pitney, a keen, venerable, hard-riding practitioner who had lived in the village of Absecon for 30 years, and who had become the oracle of these parts. He bled and blistered up and down the Shore Road from Tuckerton to Somers' Point. He was sometimes called to Absecon Beach. In the summer of 1845 he stood on a sand dune where the Seaside Hotel now stands, and declared that here at his feet was to be an El Dorado. He saw that with railway connection to the great metropolitan centers the sand dunes would blossom like the rose. Here would spring up a resort of robust health. Dr. Pitney not only conceived Atlantic City, he actually founded it. He wrote a series of 11 articles in the Philadelphia Inquirer, in 1850, pointing out the attractions of Absecon Beach as a watering place, its moderate temperature in Summer and Winter, its bathing facilities and its proximity to the great centers of population. The island had long been known to a few who had struggled through the underbrush and sand in slow going wagons to regain lost health. These few knew it as a lonely region, remote and inaccessible. The world at large knew Cape May and Long Branch but had never heard of Absecon Beach. On his long and weary rides Dr. Pitney brought his visions down to earth. He talked over his dreams of a railroad with Absecon's most prominent citizen, General Doughty, who caught his enthusiasm. The village wiseacres opposed the project, said it couldn't be done; what an impractical visionary to suggest that the meadows could support a train of cars! Who ever heard of building a railroad from somewhere to nowhere? It hadn't been done anywhere in the world. And so, when Dr. Pitney applied to the legislature for a charter for his railroad, with usual legislative myopia his application was declined. The doctor, however, was persistent; went himself to Trenton, lobbied and, after a contest, came away on March 19, 1852, with a charter. An engineering survey was completed in 2 months and the Camden and Atlantic City Railway was organized. All the stock was sold in a single day on Arch Street in Philadelphia. Dr. Pitney, as one of the directors, induced a wealthy shipper, John C. DaCosta, to become the first president of the railroad. John C. DaCosta was the illustrious sire of an illustrious son, Dr. John Chalmers DaCosta, professor of surgery at Jefferson. Twice, during construction, northeast storms destroyed the narrow gauge roadbed across the meadows. Wise heads nodded, but the rails were finally and permanently laid on July 1, 1854. On that day the first excursion train ran from Camden to a

"city" of 12 houses, incorporated as a city just 4 short months! We owe our lighthouse to Dr. Pitney. After 3 years of persevering effort, alone and unaided, he secured a government lighthouse on the beach. It stands at Vermont and Pacific, built according to his own plans and specifications, a mute memorial to him.

A land company was soon founded. Dr. Pitney, a director, bought for this company a large part of the present site of Atlantic City at \$17.50 an acre. Little did he dream that one day beach-front property would sell for \$20,000 a front foot. Thus was the world's greatest health resort conceived and delivered. To Dr. Pitney, more than to any other man, Atlantic City owes its existence. His vision was far-sighted, his energy boundless and his persistency dogged. We have not forgotten. Some day the Atlantic County Medical Society will erect a monument to this pioneer practitioner, commemorating him and reminding our children and our children's children that Atlantic City was founded by a physician not for recreation, but for re-creation. Hasten the monument lest we forget that the mission of Atlantic City is to supply, not jazz, but robust health to America and the world.

The first resident physician of Atlantic City was Dr. Lewis Reed. According to his son, Dr. Thomas K. Reed, he left Millville in 1857, driving to Weymouth, but he lost his way and reached the Egg Harbor station just before arrival of the train for Atlantic City. He decided to give his tired horses a rest and to pay a flying visit to the shore. When he reached Atlantic City he was met at the station by an old acquaintance who greeted him with an exclamation: "You are the very man we want here!" It had been a sad day. One of the city's most prominent residents had just died for want of medical care, and the whole town had been saddened by his funeral. Two weeks later, to the amazement of his friends in Millville, Dr. Reed moved to Atlantic City where the citizens guaranteed him \$500 a year. In the fall of 1858, 1 year later, he was elected mayor and served the city for 5 terms. Later, President Lincoln appointed him postmaster in Atlantic City. He died in 1898: at the time the oldest graduate of Jefferson Medical College.

If time permitted I might tell you of Dr. Canfield, Dr. Pitney's assistant, who later became Collector of the Port of Bargaintown. I might tell of Dr. Fidler, of Mays Landing, who served the people in the double capacity of preacher and physician, working week days and Sunday to make angels of men. I might tell you of Dr. John Budd, who for want of better means of transportation used to walk from his office in Mays Landing to Estelville, a distance of 8 miles and charge 50 cents a visit. I might tell you of Dr. Miles Synott, of Chew's Landing, who once blistered the soles of a patient's feet because he would not stay in the house when ordered to bed. But I have exhausted the 15 minutes allotted to me.

In closing, let me quote from the first History of Medicine in Atlantic County written by the scholarly first president of this County Medical Society, Dr. Job Somers: "I cannot adequately portray the labors of these early physicians. They were obliged to keep relays of horses and travel from morning until midnight, and oftentimes from dusk until dawn—through summer's melting heat and the chilling blasts of winter—fasting or feasting as occasion afforded—onward through the lonely pines, choked by dust and harassed by swarms of mosquitoes that are said to have worked in 3 gangs of 8 hours each. They never

faltered where duty called them. No one, we are persuaded, can have any just conception of the life of toil and self-sacrifice which these earlier physicians endured."

Some Reference to the Founders of the Atlantic County Medical Society

Dr. Philip Marvel

I have been assigned the very pleasant duty of reviewing the early history of the Atlantic County Medical Society, and especially to speak of my personal acquaintance with and knowledge of its original members. Fifty years have now passed since this organization sprung into activity; which seems quite a span of time. I fear some of the younger members here may already be conjuring in their minds something of the early tragedies and terrors of the wilderness through which the early pioneers had to pass when traversing the county from side to side and from patient to patient, but for their comfort of mind, I will state that Atlantic County, in the year 1837, by Legislative Act, annexed that portion of the southern New Jersey coast, and later, with no reflections on Gloucester County, the territory in question had advanced in civilization and cultivation to the time of organization of the Atlantic County Medical Association. In proof of the same, I quote from the address of the first President of the Atlantic County Medical Association, Dr. Job Braddock Somers, which was delivered in May 1881. By comparison, he referred to the conditions in Atlantic County in 1880 in contrast with the time and conditions of the early pioneer's life, more than a century before. Dr. Somers wrote as follows: "At present each town of any considerable size has its physician, and the day of medical pioneer life in Atlantic County may be considered as having ended. The railroads now skirt the coast and cross the county in nearly every direction; physicians jostle one another on every side, but the friction polishes them and we shall henceforth have an exemplification of the law of the survival of the fittest".

Thus spoke the first president of the Atlantic County Medical Society authoritatively, for no one of the profession possessed a greater or more intimate knowledge of conditions and circumstances in the county than he. Therefore, we must assume that Atlantic City and most of the county's nearby towns were well supplied medically, not only supplied in numbers but with a profession intelligent and skilful, possessing vision and force. The same, I am glad to be able to verify.

It was in June 1880, the following was recorded: "Pursuant to an invitation sent to the regular practitioners of medicine of Atlantic County, at the solicitation of a number of the profession, the following named physicians assembled in the Council Chamber of the City Hall at Atlantic City: Drs. Job Braddock Somers, Lynwood; Denman Bevis Ingersoll, Mays Landing; Edmund H. Madden, Absecon; T. P. Waters, Absecon; Theophilus Boysen, Egg Harbor; G. E. Abbott, Tuckahee; William Boardman Reed, Atlantic City; all being of Atlantic County and of neighboring towns. As evidence of their preparation and medical qualifications: Drs. Somers and Madden were graduates of Jefferson Medical College, in the years 1859 and 1866; Drs. Ingersoll, Wright, Waters, Abbott and Reed, of the University of Pennsylvania in the years 1865, 1865, 1864 1879 and 1878 respectively; Dr. Boysen, of the University of Buffalo, N. Y., in the year 1874.

A preliminary meeting was called to order by

Dr. Boysen, who stated the purpose of the call, the conditions to be met, and the probable influence of an established society. The meeting was open for general suggestions and discussion, after which Dr. Somers, acting as Chairman, and Dr. Boysen as Secretary, Drs. Reed, Ingersoll and Wright were appointed a Committee to formulate a rule of procedure for a permanent organization. The preliminary meeting recessed, affording the committee time and opportunity for its referred duties. After a reasonable delay and deliberation, the meeting was reassembled to hear the Committee's report, which was read and adopted. Once regularly organized the first duty was declared to be the election of officers, which resulted in the election of Dr. Job Braddock Somers, President; Dr. Theophilus Boysen, Secretary; and Dr. Edmund H. Madden, Treasurer. All business, as provided by the Committee's report being attended to, except drafting of the Consti-

that resulted in acquainting the medical profession and the nation-at-large with the health-building qualities of southern New Jersey's climate, and the special advantages and accommodations to be obtained in this city. Here, capital, transportation and hotel interests freely joined forces; at that time the hotels were largely represented by Friends (Quakers) who then and ever since have stood for 2 P's—Principle and Progress.

If credit belongs to anyone more than to another, for vision and determined effort, in preaching and spreading the gospel of health through both the secular press and medical journals, I am sure it should be voted to Dr. W. Boardman Reed—because from the time of my association with him in 1884, until disability (the sequence of a wound and exposure received in the War of the Rebellion) forced him to retire from a very large and arduous practice here, to Philadelphia and later to California, where he, in both places, con-



DR. BENJAMIN T. ABBOTT



DR. WILLARD WRIGHT

tution and By-Laws, for which a committee was later named, the Committee on Organization was continued. All other business being regularly disposed of a motion by Dr. Ingersoll resulted in the election of Dr. Thomas K. Reed as the first essayist. While there are no evidences in the recorded minutes of the election of Dr. Thomas K. Reed to membership in the County Medical Society (T. K. being a contraction of Thomas Kimball, by which I shall hereafter refer to him), I incidentally have personal knowledge of the fact that he from time to time contributed much to the society's interests, both from his rich store of clinical knowledge and his wise council. Since Dr. Lewis Reed (T. K.'s father) was Atlantic City's pioneer physician and was always a part of every advanced movement for the betterment of Atlantic City, from its early history to the period in review, and because the "Reed" influence, more than any other, dominated the early civic and medical advancement of Atlantic City, I take this occasion to refer to the same by way of introduction of the early advertising propaganda

fined himself to a limited amount of special practice. But I must not wander too far afield as my purpose in the reference to Dr. Lewis Reed was to show his early connection with T. K. Reed, and later, W. Boardman Reed, all of whom, in association with many and varied interests, did so much to acquaint the people with the salubrious climate of Atlantic County and to reflect a ray of light on the rapid development and importance of South New Jersey as a health resort. With this reference to the efforts of individuals and interests combined, in the early eighties and nineties, and my apologies, I return to the organization and the recital of my personal knowledge of each of the original members, and of memories I greatly prize. On this occasion, it is needless to recall to you that the Atlantic County Medical Society grew and grew in membership, vigor, spirit and influence, from its organization until the present, for many of you have been contemporary with and are already well acquainted with these facts. I shall now refer to the Founders, as they became active in the interests of the organ-

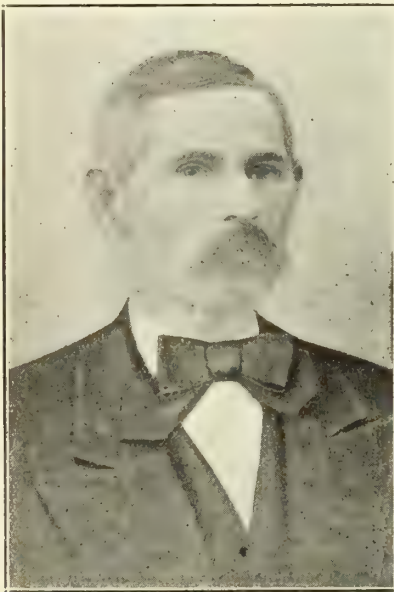
ization, with the exception of Dr. W. Boardman Reed, of whom I have elected to speak last.

It would be difficult to separate and define comparative differences in the labors, enthusiasm and devotion to the work and interests of the society, of Drs. Somers, Ingersoll and Boysen. Temperamentally and in personality they were widely different—but in knowledge, in wisdom, in deliberation, in decision, in manner and in persuasive influence, they were strikingly alike; therefore, I prefer to speak of them in a composite way.

My introduction to the profession in Atlantic County occurred in June 1884, and in May 1885 I was elected a member of the Atlantic County Medical Society, which subsequently provided for me the privilege of a close acquaintance with the 8 members under review. While there was much to be admired in their friendly relations to each other, and in their individual attainments and the particular characteristics of each, there were with

but men who measure and balance well with the masses, men who can be approached, trusted, estimated and enjoyed. Such men are more than heroes, they are of the material and metal that make leaders and exhibit the evidences of leadership. They are acquainted with the highways and byways of human passions and frailties, and stand four-square with the advance of civic and scientific progress in public life and the uplift and betterment of the people. As professional men they traversed the county wherever sickness was found, and little thought of themselves whether amidst the scorching midday sun, the murky darkness of night, or the wintry blast of north-easters. A summons to them meant but one thing, a request; and their answer was service, with no road too long nor travel too bad—for where ere duty called it was answered with a sympathetic response.

Dr. Somers was tall, thin, light-brunette with



DR. TALCOTT P. WATERS



DR. EDMUND H. MADDEN

these gentlemen, as with many other forceful up-standing men, special attractions—a magnetism, may I say, that both attracted and repelled. I am sure I may speak of the trio already referred to as positive and progressive; so much so, that all contacts seemed to accumulate and strengthen the attracting forces; and I speak but the truth when I say men of their possessed qualities and acquired skill could not meet failure once a contact was made; for confidence and affection was most sure to follow. This was much the situation in the community in which each gave his personal services. They may not have left accumulated wealth in real estate or personals, land and houses, but each has left in stored memories priceless affection and gratitude that will live as long as the pages of history endure. But it is not heroes I would make of them; to me they were only men—men such as one is delighted to meet, men with whom one may mingle and feel a quieting sense of equality, men of simple manner and requirements and *uncertified* accomplishments; not men who show as peaks above the sky line,

deep-set eyes, a straight, slightly protruding forehead and a medium high dome; he wore a full chin beard of noticeable length and usually was attired in the regulated English morning suit; he was an omnivorous reader, a pleasing speaker and an interesting writer, his most pretentious contributions being the "Life and Adventures of Lieut. Richard L. Somers in the Mediterranean Sea During the Tripolitan War", and the "History of the Early Pioneer Physicians of Atlantic County", together with pamphlets on special subjects. He was a descendant of the same family as the Lieut. Richard L. Somers.

Dr. Ingersoll differed from him mostly in form and type, being medium tall, slightly heavier in weight, and in complexion a darker brunette; he likewise a close student of nature and books, and equally intemperate in his professional labors; his name was representative of the 3 English families whence he sprang, viz., Ingersoll, Bevis and Denman, who came to this country in the seventeenth century. The doctor received his degree in medicine in the year 1865, and immediately

entered upon a patriotic service for the government by attaching himself to the medical and surgical service of the Saterlee Hospital at West Philadelphia, the work of which he carefully recorded. His professional life was one of faithful and conscientious service; his desire for truth and interest in scientific study gave to him an accumulated fund of knowledge, quite unusual to one similarly situated in a small isolated town; and his ability to impart the same made him an interesting practitioner and a charming friend.

Dr. Boysen, born of German parentage, was tall and medium stout, and of the characteristic German blond type. He was possessed of a manner and a cordiality that quickly won admiration. To acquire his acquaintance was soon to gain his friendship, and one experience with the grip of his handshake imparted a thrill of confidence that only such a nature can bestow. He, likewise, was studious and possessed of an intelli-

them. Their preparative training was, as were their professional attainments, closely paralleled one with the other, insofar as it was necessary for each to provide in part ways and means for his early scholastic and academic preparation.

Of Drs. Abbott, Madden, Waters and Wright, my knowledge is more or less limited to association in the county society, hence personal contacts were much less frequent and intimate, though it should be said of them that they were well and favorably known to their patients, to the towns and community in which each lived, and doubtless held a like relation of unquestioned confidence such as was enjoyed by the trio previously referred to. Dr. Abbott, as I remember him, was tall and thin, of the brunette type, nervously quick in his movements and full of energy. Drs. Madden and Wright were stout, more or less of the phlegmatic type; the former exhibiting more of "consequential deference" than either of the



DR. BOARDMAN REED



DR. JOB BRADDOCK SOMERS

gence that easily differentiated and stored knowledge from many sources. In conversation he was instructive and entertaining, often revealing a remarkable acquaintance with medical history and scientific subjects. Like most German students, his power of concentration and love of the unrevealed, easily led him into definite lines of inquiry and research.

As before stated, while these men were in many ways individually different, they had many characteristics in common, they were all students, devoted to the study of nature and their profession, inspired by advances in science and closely observant—in the latter trait, no doubt, centered a goodly portion of their clinical ability, for their college training was without laboratory or bacteriologic acquirements (medical science at the time of their graduation was without verified evidence of exact causes of diseases, or the knowledge of science by which such could be acquired). They were alike, gentle in speech, cordial and sympathetic in manner, and reassuring in appearance. To know them was to appraise and trust

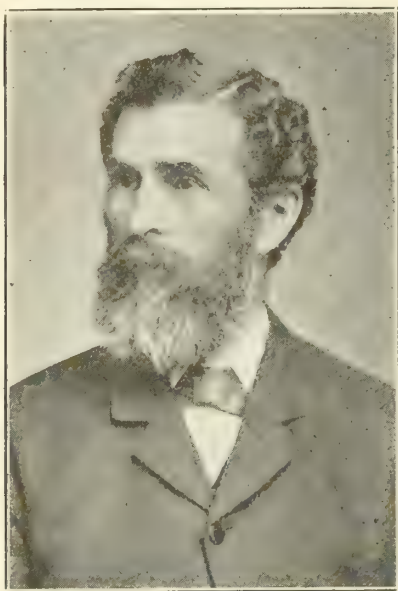
others. His type is forcefully and splendidly represented in the Beard engraving entitled "The Consultation" in which he portrays the different types of physicians as specialized bears. Dr. Wright, always jocular and jovial, was good-natured and trustful, even to the extent of an indulgence that bordered on the over-indulgent. He was known seldom to send a bill for service and preferred to have the matter of remuneration left to the judgment of his patients, and such being the case, Dr. Wright lived and died a poor man.

Dr. Madden, the very example of "strict" ethics and straight-forwardness, is remembered by many of you present, as he was the last to answer the call to the land whence no traveler returneth, and no description of mine will add to your already pleasant memories of him. He was up and doing, in the harness, so to speak, to the last; never lagging; never retreating; always forward and responsive to the call. Nature granted him many years, but exacted severe tribute in his affliction in the last few of them, but like the true soldier,

he was brave to the end; he bore his distress and pain with fortitude and without complaint and closed his eyes with a prayer of thanksgiving.

Dr. Waters was of a rather frail physique, also a brunette, and neither very tall nor stout. My recollection of him is that he had an accident in some earlier day of his life, which to some extent impaired his activities, and no doubt accounted in part for that reserve which at times amounted to diffidence. He was courteous in manner, interesting in conversation when the subject being discussed was interesting to him, but slow to promulgate or use devices to introduce new subjects in place of the one without interest to him. He was of the matter-of-fact type, more or less positive in his statements, and slow and unyielding in point of belief, much of which, no doubt, resulted from the fact that he did not enjoy good health. While his patients never seemed to be great in numbers, a goodly portion

torial and editorial training, which he had experienced previous to his medical career, he was more than incidentally prepared for the reforms and improvements he endeavored to promote and establish. Dr. Reed's ability as a writer, as well as an organizer, was admitted by all, for his pen was scarcely dry for any length of time during his active membership in the county medical society. His contributions on varied subjects, both secular and medical, were numerous and acceptable to lay magazines and medical journals. Early popularity of Atlantic City owes more to his untiring efforts in publicity and dissemination of health propaganda than to any other one person or interest associated therewith. Dr. W. Boardman Reed was also a soldier, having earned a Captaincy in the Union Army. His permanent residence in Atlantic City dated from 1879, shortly after which he featured the first real advertising association among the hotel and business-men



DR. DENMAN BEVIS INGERSOLL



DR. W. BOARDMAN REED

were demonstratively devoted to him. With better health and under less distressing circumstances, I am sure he would have been rewarded with greater fortune, for he was a man of sterling character, religious fervor, and a will to do, much too strong for his frail body.

Dr. W. Boardman Reed, also a brunette, was in some ways the most conspicuous member of the county medical society's founders. To him must be given credit for the command of the forces that finally correlated, captured and assembled the physicians in session for organization. Previous efforts had frequently failed. Dr. Reed, truly an organizer, had the required amount of magnetism, which, when exercised, seemed effective in calling people together and interesting them in the matter in prospect. As the recorded minutes frequently declare, his motions and discussions show forth his leadership. His formulated amendments to the Constitution and By-Laws, to meet some needed change in the organic law adaptable to changing situations, were frequently offered and adopted. Benefiting by an exacting repor-

that sought to make Atlantic City generally known as a health resort, through the advertising medium of the press and magazines.

It would be a professional omission not to mention the name of Dr. Julius Kammerer, an Honorary Member of the County Medical Society, for a number of years a resident and a beloved and trusted consultant to most of the physicians here and nearby. Dr. Kammerer was a German political refugee, coming to this country in company with Dr. Abraham Jacoby and Carl Schurz (the two latter gentlemen settled in New York where their names are affectionately associated with many interests, medical and civic, also with state and federal political developments). No member of the Atlantic County Medical Society received greater consideration or was held in higher esteem than Dr. Kammerer. In his death, which occurred shortly after 1900, Atlantic City especially and Atlantic County in general, lost a beloved, resourceful and helpful consulting practitioner. Reference should also be made to the organization of the Atlantic City Academy of

Medicine in 1896, or thereabout, which quickly became an organization of great interest. It grew rapidly in numbers and importance until re-organization of the American Medical Association in 1902-4, when the consensus of opinion of the medical profession declared in favor of consolidation and concentrated interests. Thus, the Academy of Medicine ceased functioning. From thence the interests and progress of the Atlantic County Medical Society have been particularly active in things medical, constructive, situated as it is, favorable in the matter of distance from 5 medical colleges; its monthly programs are usually amplified by one or more invited speakers, the visitation of whom adds to the interest of the meetings and makes the Atlantic County Medical Society a veritable post-graduate school, the advantages of which not infrequently extend to members of neighboring counties. In a word, it may be truthfully stated of the Founders of the Atlantic County Medical Society, that they were endowed with natural gifts, enjoyed in their early days the advantage of liberal education, which in after years seemed to fit them for many public as well as professional duties. It being true of Drs. Somers, Ingersoll, Boysen, Madden, Wright and W. Boardman Reed, that they were each drafted into political offices, some of them acting repeatedly as mayors and in other offices as members and officers of local boards of health, and at all times to a greater or lesser extent as the advisers and arbiters of many situations that from time to time arose. Their sterling characters, their capacity for clear thinking and gift of direct speech, combined with public spirit, wide and extensive knowledge of mankind and human affairs, brought them to the front. They will ever be remembered as a group of kindly, courteous, upright, honorable gentlemen and able medical practitioners. They were God-fearing, religious men, standing strong and conspicuous for the faith they each upheld, and for the profession which they individually honored. In closing, I want to express my great regret that time does not permit of reference and review of many of the active, contributing members to whose assisting interests the society owes most for its sustained growth, and developing progress—an inviting subject for the pen of some present interested member—a trust well merited, and a subject of varied interest.

ADDRESS BY PRESIDENT MCBRIDE

The last speaker of the evening was Dr. Andrew F. McBride, President of the State Society, who spoke briefly, congratulating the Atlantic County Society on its fiftieth anniversary. He said that he had listened with a great deal of interest to the early history of the pioneers of medicine in this part of New Jersey, and spoke of the ideals of the medical profession and its devotion to service to the community. He said that the history of these pioneers has illustrated this readiness to serve. Their duties were well done in spite of the existing handicaps. They were men of great courage and devotion and fortitude. Fifty years ago this society began with 8 members. Now it has over 130.

Dr. McBride said that he brought a message of congratulation from all the other officers of the State Society. He said that much of the medical history of the state has been made by Atlantic County, that much of the organization and scientific work has been done here. Several of the recent officers of the State Society have been

from here. In this county the Woman's Auxiliary was first organized.

He then spoke of the relations of the state society to the public and said that the society is frequently criticized for its zeal for the public welfare. He hoped that the day is not far distant when everybody who engages in the healing art will have to satisfy certain basic educational requirements. This is all that the state society wants. It is part of our responsibility to the public to demand this. If our legislators will some day require these basic qualifications they will sound the death knell of the cults. The health and lives of the community should not be entrusted to those who are not properly qualified. The people are looking to the physicians to lead in public health.

In closing, he again offered his congratulations to the society and wished the members many years of health and happiness.

After the speeches the evening was continued with dancing and cards. Music was furnished by the Haddon Hall orchestra.

Atlantic City Hospital

Robert A. Kilduffe, M.D., Reporter

The monthly meeting of the General Staff of the Atlantic City Hospital was held in the Auditorium on the evening of May 23. Meeting called to order by Dr. David B. Allman, president.

Dr. R. E. McDade, resident physician, presented the following paper on "Purpura Hemorrhagica", with a case report.

Purpura hemorrhagica is divided into 2 great classes: simple or symptomatic purpura, occurring in such diseases as scurvy, the leukemias, aplastic anemia, endocarditis, etc.; and essential idiopathic thrombopenic purpura where no other disease is associated with it.

Essential idiopathic purpura, also called thrombopenic purpura, thrombocytolytic purpura, and numerous other names, is a disease of obscure etiology, having no familial tendency, affecting young females mostly but also occurring in both males and females at any age and characterized both clinically and pathologically by definite changes in the blood, blood-vessels, and reticulo-endothelial system. Clinically, the disease is manifested most commonly by hemorrhages into the skin and from the mucous membranes. Of the mucous membranes the most common site is the nasal, the next most common is the mouth; of the skin the dependent parts. However, the hemorrhages of thrombopenic purpura may be local and confined to the kidney, bladder and uterus. Hematologically, the disease is characterized by 5 different findings: (1) Prolonged bleeding time—5 to 30 minutes; (2) normal coagulation; (3) failure of the clot to retract normally—the most outstanding feature; (4) lowered platelet count—30,000 to 50,000 or less; (5) positive capillary resistance test.

The cause of essential thrombopenic purpura is not understood. Most investigators think the spleen is the most important structure concerned. One thing is always present, and that is lowered blood platelet count. These platelets are thought to be formed by the bone marrow in sufficient numbers but due to hyperactivity of the spleen they are destroyed and never perform their function in the capillaries. Recent investigators say that a low platelet count is not in itself enough

to cause spontaneous bleeding and that some capillary dysfunction, perhaps due to infection, is the exciting cause. This would explain the localized nature of the disease in some instances. Very few writers believe the bone marrow is at fault. Of course, in some conditions of bone marrow disease, as for example myelogenous leukemia, the platelets are low but here it becomes a symptomatic purpura and not an essential one. Essential thrombopenic purpura is rarely associated with arthritis, erythema or urticaria; bleeding from the lung is almost unknown; seldom is a history of trauma obtained, the bleeding occurring spontaneously; and case reports do not substantiate the common belief that bleeding from the uterus is common.

The diagnosis of essential thrombopenic purpura is made upon the following points: (1) History of easy bruising; (2) spontaneous bleeding from nose, mouth, kidney, bladder, uterus and gastro-intestinal tract, with purpuric spots in the skin; (3) prolonged bleeding time; (4) failure of normal retraction of clot; (5) normal coagulation time; (6) greatly decreased or absent platelet count; (7) positive capillary resistance test.

Differential diagnosis is often easy. From the pernicious anemias, agranulocytic anemia and the leukemias, the differential count alone is usually enough. In aplastic anemia the total leukocyte count is greatly diminished, often below 1000. From Banti's disease, Goucher's disease, hemolytic jaundice, and the like there is little trouble. In hemophilia, only males are affected, there is little family history of bleeders, the disease is usually caused by traumatism, there is a history of easy bleeding from birth, joints are often affected, the platelet count is normal, bleeding time is normal and coagulation time greatly prolonged. From benzol poisoning, purpura sometimes cannot be differentiated unless a history of exposure can be obtained.

Prognosis. Some cases are rapidly fatal, some are prolonged, some have only one attack and never any more, but the greater portion have attacks with varying periods of remission, covering a period of years.

Treatment. This, the most interesting feature, is divided into treatment of the acute and of the chronic forms.

In the acute form, when the blood loss is enough to produce a marked anemia blood transfusions are of greatest importance, and should be given in large amounts and at frequent intervals, not only to help make up the red blood cell loss but to supply blood platelets. Life of the transfused platelets has been found to be 3-4 days, therefore transfusions should be given accordingly, e. g., more often than transfusions to supply lost red blood cells in other conditions. Where the bleeding is not severe enough to demand transfusion, numerous remedies have been used with questionable value: calcium chloride and lactate; adrenalin; liver extract; the quartz light; mercury vapor light; irradiation of spleen; x-ray castration; intramuscular injections of 20 to 75 c.c. whole blood.

Intramuscular injection of whole blood is thought to be the most valuable method of stopping the bleeding. One case has been reported of a 7 year old child who had purpura and hematuria for 7 days, so marked that the body scarcely showed a square inch of normal skin

and the urine appeared as if pure blood, yet 16 hours after a 25 c.c. injection of whole blood the patient passed almost clear urine and his purpura had made a marked improvement.

Treatment of the chronic form by splenectomy has given most encouraging results; most important is to make certain that it is chronic. If a case is seen during a mild attack, time should be given to determine whether it is acute or chronic. The reason for this is thought to be that the pathology is different in the 2 forms. As has already been mentioned, the cause of thrombopenic purpura is thought to be hyperfunction of the cells of the reticulo-endothelial system. These cells are found in the capillaries of the spleen, liver, and lymph-nodes and all are involved in the acute form; therefore, removal of the spleen does not prevent the destruction of blood platelets even if the patient could stand the operation during this stage. In the chronic form the spleen is enlarged, (not so in the acute), and the spleen alone is thought to be the cause of symptoms. The reasons for this belief are: (1) Splenectomy cures the disease clinically although small purpuric eruptions do occur occasionally. (2) There is an immediate rise to normal limits after splenectomy with a marked decrease later which is thought to be due to the minor rôle played by the remainder of the reticulo-endothelial system. (3) The spleen is not enlarged in the acute form and is thought to play only an auxiliary part. Splenectomy cures 90% of chronic cases.

Case Report

Patient is an 18 year old Italian girl. Mother died at 32 of gall-bladder disease. No history of tuberculosis, cancer or heart disease. Up to age of 11, patient had nocturia and anuria. Not subject to colds. At age of 3, she fell and broke her nose, for which she has had an operation. She has led an active life, engaging in basket-ball, hockey, swimming, etc. Menses normal except for pain at times.

One year ago patient began to have frequent urination, and 6 months ago she noticed some blood and blood clots in urine. The act of urination was frequent and painful but followed by relief. Suffered pain in both right and left lower quadrants, which grew progressively worse until admission to the hospital on Nov. 4, 1929. Careful physical examination, with special attention to heart, lungs, kidneys, uterus and bladder, failed to reveal anything abnormal.

Blood count: R. B. C., 4,220,000; W. B. C., 13,500; Hg., 83%; C. I., 0.9; Polys., 79%; S. L., 16%; L. L., 3%; Eos., 1%; Baso., 1; blood sugar, 106 mgm. %; blood urea, 20 mgm. %; blood creatinin, 1.6 mgm. %; blood chlorides, 680 mgm. %. Cystoscopic examination revealed numerous submucous hemorrhages most marked around the trigone. No ulceration, diverticuli or calculi seen. Indigo carmine test normal in 2 of 3 cystoscopic examinations, once delayed 17½ minutes in left ureter. Pyelograms showed nothing abnormal.

Summary of findings. So far no evidence of any foci of tuberculosis has been found. The lesion seems confined to the urinary tract. The important findings are: (1) Frequent and painful urination. Hematuria and blood clots. (2) Pains in side and back indicating renal colic. (3) Bleeding from both ureters as shown by ureteral catheters at cystoscopic examination. (4) Submucous hemorrhages of urinary bladder.

Patient remained in hospital 1 month and 10 days during which time she was ambulatory and comfortable except at times when she would have pain in lumbar region and lower abdomen.

Treatment was symptomatic except daily bladder irrigations with silver nitrate 1:10,000. Bleeding became less but did not cease. After the possibility of tuberculosis was made more doubtful and only submucous hemorrhages were found, some blood disease was looked for. Coagulation time 4 minutes, 30 seconds; bleeding time 14 minutes, 30 seconds; platelet count 82,000. Then we gave 2 injections of 20 c.c. whole blood intramuscularly.

Report of Gynecologic Service

Dr. Conaway

I submit herewith a report of the work performed in the Gynecologic Service of the Atlantic City Hospital, from August 1 to December 1, 1929. During this time, 125 patients were admitted, of which number 89 were white and 36 colored. Of these patients, 100 were submitted to operation, with 1 postoperative death; 8 refused operations and 14 were referred to the Medical Service. The average number of days per patient spent in the hospital were: white 11.3 and colored 11.7.

The post-operative death was Case 3893, Ethel J. S., white, aged 28, admitted on August 11, with diagnosis of acute salpingitis and pelvic peritonitis. She was kept in bed with the usual rest treatment supplemented by ice bags and opiates when necessary until the day of operation August 17. Operation was a left salpingo-oöphorectomy for tubo-ovarian disease, the appendix having been removed at a previous operation. Convalescence was normal for several days when she began to have some nausea and vomiting but with practically no temperature and no acceleration of pulse. This continued until August 26 when she was again operated upon for relief of a partial intestinal obstruction the result of plastic peritonitis. There were many dense adhesions throughout the abdomen. A glass drainage tube was inserted in the ileum near the cecum. She died from shock a few hours later. Although this patient had some nausea and vomiting daily for about a week she did not have a complete obstruction. A surgical consultant advised against operation at this time, because the obstruction was not complete.

A few hours later there was undoubted fecal vomiting and then operation was, of course, imperative. There was no active peritonitis and no abdominal distention until a few hours before the second operation.

It might not be amiss at this time to review briefly the progress in gynecology during the past year. The line of development assumed by hormone investigation during recent years is shown by the advancing knowledge concerning the occurrence of ovarian hormones in nature. At first it was found in the fluid follicular contents, then in the ovary, and subsequently in the placenta. Later on it was shown by Loewe, Zondek and Ascheim that it was also contained in abundance in the urine of pregnant women. Other organs, body fluids and excretions contained essential quantities of hormones. One of the newest preparations is a placental extract called *progyonon*, from the Laboratory of Sherin and Kahlbaum, in Germany. Novak claims very satisfactory re-

sults in several cases of endocrine disturbance and secondary amenorrhea by subcutaneous or intramuscular injections of the water-soluble preparation of this extract. Positive proof of the existence of hormones in the blood of many other conditions has been made in the Laboratory of Dr. Henry Bock, of Munich.

A new idea in the treatment of infections of the cervix is to use hypodermic injections of some of the anilin dyes, or a 2% solution of mercurochrome directly into the cervical tissue. This, however, is not considered as efficient as a cautery.

Diathermy is more favorably spoken of for several gynecologic conditions.

The trichomonas vaginalis, as a causative factor in many cases of vaginitis with mucopurulent discharge, has been reported and described by several authors. Douches of bichloride of mercury after the use of curette and cautery are highly efficacious in the treatment of this condition.

Ullmann, in the St. Louis Journal of Radiology (Dec. 1929) discusses a double phosphate of lead and calcium which he has used in the treatment of cancer. It is said to be less toxic to blood than preparations previously used, and at the same time apparently as effective therapeutically. The primary effect is an increase in both the hemoglobin and the red count. In none of the 8 patents on whom it has been used was an anemia produced.

Drs. Coffey and Humber, of the Southern Pacific General Hospital, San Francisco, claim to have isolated a substance from the adrenal glands which is "not a cure", they say, "but a most encouraging experiment" in the line of treatment for cancer sufferers.

At the opening of a New Radium Clinic at the Victoria Hospital, Burnley, England, Lord Moy-nihan said that surgery in its attack on cancer had reached its limit. As 1 person in 7 over 30 years of age died of this disease, it became imperative that something more should be done. While the general death rate had been lowered 32% in the last 20 years, the death rate from cancer had increased. During this century alone 12,000,000 people in the civilized world had lost their lives from cancer. The attack on cancer could be made more effective in 2 ways—by *education* and by *research*.

Of the many new instruments invented to assist in gynecologic surgery, one of the most novel I have seen recently is the "hysteroscope", devised by Professor Felix v. Mikulicz-Radecki, of Berlin. I saw this instrument demonstrated by its inventor at a meeting of the New York Obstetric Society last week. It somewhat resembles a cystoscope with a slit opening on each side as well as an end opening which gives an excellent view of the entire uterine cavity. It is, of course, electric lighted and also quite expensive.

A new uterine elevating forceps, for which I claim some originality, is now on the market. The shape of the instrument, the length and shape of the blades, the increased cavity with its oblong instead of round opening, and the absence of any rough surface, or teeth, are characteristic features of this new instrument. In addition to holding the uterus, it may also be used for grasping fibroid tumors without the possibility of tearing or injuring the specimen, which would then present a more pleasing appearance in our new pathologic museum.

Dr. Conaway presented this instrument to the hospital.

DISCUSSIONS

Dr. Barbash: Removal of the spleen in purpura hemorrhagica does not always involve a cure. If splenectomy fails, a focal infection, obscure in nature, might be the causative factor and should be carefully sought for.

Dr. Stewart: More definite relief follows splenectomy in the chronic forms of purpura hemorrhagica, more indefinite results being obtained in the acute form.

Dr. Charlton related a case of bleeding caused by polypus in the nose. There was a high blood pressure with a coagulation time of 15 minutes. Administration of calcium reduced the coagulation time to normal and resulted in almost immediate cessation of the bleeding.

Dr. Marcus commented upon use of the intraperitoneal route in the administration of blood, which is simpler than the direct transfusion, but absorption is less certain. Estimation of the dose is made on the basis of from 10 to 15 c.c. of blood per pound of body weight preferably using smaller repeated doses.

Dr. Carrington complimented the progressiveness of the gynecologic service.

Dr. Darnall commented upon the recent advances in gynecologic practice, especially emphasizing use of the new hormones, objecting to the use of some which are administered hypodermically, and others that are not standardized. The cost of some of these products makes them rather prohibitive for general usage and especially when the physician is unable to definitely portray to the patient the ultimate results to be obtained.

Dr. Uzzell: With reference to the uteroscope demonstrated by Professor Mikulicz-Radecki, of Berlin, a simpler type of similar instrument was demonstrated by Dr. Alfred Heineberg about 10 years ago.

Dr. Kilduffe deplored the attitude of a certain proportion of physicians and innumerable laymen in their gullibility as to statements made by so-called reputable investigators. He especially referred to cancer cures which bear the earmarks of fallacious interpretation. He deplored the newspaper publicity and decried the use of untried and improperly tested procedures of various forms of therapy. A sound basis of experience should always constitute the background upon which the clinician should base his opinion as to their proper use, at all times assuming a skeptical and cautious attitude in procedures that might embody doubtful results.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at Hackensack Hospital, Tuesday evening, June 3.

The Delegates to the State Society were asked by the president to join him after the meeting to discuss their work at Atlantic City.

The second reading of the amendments to the By-Laws, forming an executive committee, was given by the secretary.

The applications of Victor A. Blenkle and Orlin V. Wry were read, and also the application of Benjamin Seiler by transfer from Kings County Society, and were referred to the Membership Committee. Dr. Russell Burton-Opitz was elected to Associate Membership.

Dr. Conde Pallen reported for the golf committee that a tournament was in prospect. Drs. McCormack and Levitas are the other members of the committee. They plan to have one field day a month during the months of June, July and August at the different clubs. A tournament will be held for the President's Cup. Further notices will be sent out by the secretary.

The treasurer reported a balance of \$422 for the season.

The speaker of the evening was Dr. A. L. Soresi, of New York. His "New Views on Pathogenesis, Diagnosis and Treatment of Ulcer and Cancer of the Stomach" were given with such tremendous sincerity as to make a profound impression on the members of the society. He gave a demonstration of radiographs taken by the new technic which he has developed. Many of the pictures were astounding in details which have never been demonstrated before.

Hackensack Hospital Staff Demonstration Week

Spencer T. Snedecor, M.D., Reporter

An unusual staff presentation was sponsored by the Hackensack Hospital group in what is hoped to be its annual celebration of National Hospital Week. It was highly successful. About 150 physicians were attracted to its clinical demonstrations. A splendid spirit of appreciation and fellowship was stimulated among the staff members. The patients, the Board of Governors, and the community became aware of the sincere efforts on the part of medical and surgical staffs to demonstrate the efficiency of their work.

The climax was reached in the Fellowship Banquet at Arcola Manor, on May 20, which was attended by 125 physicians and 15 members of the Board of Governors. No speeches were made, but an attractive program of entertainment was given. Many distinguished guests were present, among whom were Drs. John Erdmann, Fordyce St. John, Joseph F. Montague, Louis R. Kaufman, Philip Trentzsch, of New York; Charles B. Kelley, B. S. Pollak, Charles V. Niemeyer, Stanley Woodruff, of Jersey City; George Lightner, of Nyack; Ralph O. Clock and Joseph B. L'Episcopo, of Brooklyn.

From one point of view the demonstration could be considered as a complete post-graduate course in practical medicine and surgery. It was entirely case demonstration. No papers were read. Each noon the hospital was host to about 20 physicians at informal luncheons.

The demonstration was sponsored by the Associate Physicians' Staff, of which Spencer T. Snedecor is President, Harrison B. Wilson, Vice-President, and Howard M. Meyer, Secretary; and the Medical Advisory Committee which consists of Drs. G. M. Levitas, Chairman, R. E. Knapp, F. S. Hallett, G. W. Finke, D. Corn, W. D. Webb, H. M. Meyer, S. T. Snedecor, C. A. King, H. Trossback, A. A. Swayze and S. T. Hubbard.

Dr. A. B. Spiegelglass was chairman of the Demonstration Committee which consisted of Drs. L. Netz, A. I. Mader, G. M. Levitas, H. B. Wilson, and S. T. Snedecor.

Dr. Vincent Farmer had charge of the banquet. Great credit should also go to the Superintendent, Mary Stone Conklin, R. N.

A tour for the public was arranged for Open House Day, for which the Woman's Auxiliary decorated the hospital and acted as guides to the visitors.

HUDSON COUNTY

Jersey City Hospital Staff

Joseph Binder, M.D., Secretary

The regular monthly meeting of the Medical Staff, Jersey City Hospital, was held Thursday evening, May 15, at 9.15 p. m., with Dr. Sprague presiding. Those present were: Drs. O'Hanlon, Sprague, Binder, Scott, Rundlett, Perlberg, J. Connell, Jaffin, Gleason, Yachnin, Perkel, Harter, E. Connell, Brophy, Hasking, Houghton, Christian, St. George, Braunstein, Borshaw, Cosgrove, Meehan, Doran, residents and interns.

Dr. Perkel. "Case of Intestinal Obstruction Due to Inflammatory Adhesions at the Ileocecal Junction." M., 65, admitted April 28 with history of an attack of pain in right iliac region, accompanied by vomiting, 5 days previously; also 2 attacks, 1 month and 5 months before that. Marked loss in weight. On admission, emaciated, dehydrated, and complaining of marked abdominal pain. Urine showed albumin, and sugar +4; abdomen rigid in right lower quadrant. Vomiting persisted; finally becoming fecal May 11.

On opening abdomen, loops of small intestine were found markedly distended, and the cecum and terminal ileum were bound down by heavy mass of adhesions, in which the appendix was buried. Adhesions freed and appendix removed. The patient is doing nicely. No evidence of malignancy found at operation.

Dr. Fellman presented 3 unusual cases of neonatal pathology:

Case 1. "Congenital Absence of Left Leaf of the Diaphragm". White, female, nonclinic case, was admitted April 20, with history of ruptured membranes. Ten hours after admission, patient was delivered of baby by version. Child was asphyxiated and in spite of all methods of resuscitation, it expired within 30 minutes. It was noticed that the heart beat was on right side. Autopsy revealed absence of the left leaf of the diaphragm, with stomach, all of small intestine, and spleen in the left pleural cavity; left lung atelectatic; heart disposed to right side; right lung slightly aerated; esophagus in normal position.

Case 2. "Congenital Atresia of First Portion of Jejunum." Delivery of an apparently normal child, who several days later began to vomit its feedings in a manner typical of pylorospasm or stenosis. Visible peristalsis noted in abdomen. Repeated gastric lavage and hypodermoclysis resulted in relief of all symptoms for 2 days. Recurrence of symptoms strongly suggested obstruction. Operation suggested but baby expired before this could be done. Autopsy revealed stomach, duodenum, and first 6 in. of jejunum distended, as result of congenital closure of jejunum.

Case 3. "Hemorrhage of Right Adrenal Gland with Hemorrhage Eroding into Abdominal Cavity." Mother, aged 19; 40 hours in labor; delivered by low forceps under spinal anesthesia. Baby was apparently well except for ecchymosis of right parietal region of skull. Two days after delivery baby vomited and then had 3 convulsions 20 minutes apart. Physical examination elicited negative findings except for parietal ecchymosis, generalized pallor and evidence of cerebral hemorrhage. Baby expired shortly after last convulsion. Autopsy revealed no evidence of intracranial hemorrhage. A slight subperiosteal ecchymosis noted over parietal bone. Free blood and blood clot in

abdomen, evidently coming from right adrenal gland. The hematoma forming retroperitoneally had eroded through the parietal peritoneum into the abdominal cavity.

The value of postmortem examination in these cases is illuminating. The first and third cases might easily have been blamed on birth trauma, that is, intracranial hemorrhage, when as a matter of fact, neither one showed any intracranial pathology.

Dr. Hall presented 2 cases of old third degree lacerations of the perineum that were successfully repaired:

Case 1. A. O., white, aged 37, para-x, admitted to gynecologic service with history of 2 repairs of perineum preceding birth of her last 2 babies. As result of delivery of last baby by version, she sustained a third degree laceration. This has been repaired twice but, unfortunately, broke down.

The usual operation for perineal repair was done. Also laparotomy with removal of both tubes and one ovary, and uterine suspension. End-result excellent.

Case 2. R. M., white, aged 28, admitted for complete tear of perineum. With the birth of her last child, 5 years ago, she sustained a third degree laceration which was immediately repaired. This broke down and she was in a hospital for 6 months with sepsis, the nature of which could not be ascertained. After recovery, a second, third and fourth repair resulted in failure because they broke down. Her fifth repair was done after admission to this hospital. The technic of Howard A. Kelley's "apron flap" operation was employed with good results.

Dr. Braunstein showed 3 specimens of heart pathology: first, from a case of bacterial endocarditis in which the aortic valve also was involved; second, an hypertrophied heart with luteic aortitis; third, from a case of lobar pneumonia complicated by bilateral fibropurulent pleurisy, and fibropurulent pericarditis. The visceral and parietal layers of the pericardium were very adherent. No change in valves of the heart.

Dr. Hasking gave a summary of the papers presented at the International Congress of Psychiatrists recently held at Washington.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in Princeton, June 19, at 4.30 p. m., followed by a very delightful dinner at Princeton Inn.

The President, Dr. Vanneman, introduced Dr. Bernard Pierre Widmann, Associate Professor in Radiology, University of Pennsylvania, who spoke of "An Evaluation of Radium in the Treatment of Advanced Cancer".

A most interesting account in detail with the aid of several clearly defined slides, was discussed by Dr. Widmann, who reviewed the early use of radium and the present day methods. An earnest appeal was made for early diagnosis.

Drs. John H. McCullough, Jr., and W. G. Rainey were duly elected to membership.

The application of Dr. Raymond Wing, of Lawrenceville, was read and referred to the Membership Committee.

Dr. Robert H. Moore was regularly elected an Honorary Member of the Society.

Following discussion of the subject of Child Welfare Clinics conducted throughout the city, relative to the economic and professional attention granted in regard to financial responsibility, the matter was referred to the Public Relations Committee, of which Dr. R. H. C. Phillips is Chairman.

MIDDLESEX COUNTY

Medical Section Rutgers Club

John H. Rowland, M.D., Secretary

The annual outing of the Medical Section of Rutgers Club was held at Ross Fenton Farm on Wednesday, June 18, with 20 members and 10 guests present.

At 7 p. m. a very wonderful dinner was served, and during the dinner the members were entertained by the orchestra of Ross Fenton Farm, and by singing and dancing talent from Broadway.

At a late hour all returned home, having spent a very satisfactory day in golf, swimming, dinner and entertainment.

MONMOUTH COUNTY

D. F. Featherston, M.D., Secretary

The regular monthly meeting of the Monmouth County Medical Society was held Wednesday, May 30, at the Berkeley-Carteret Hotel, Asbury Park, with Dr. James A. Fisher presiding. Minutes of the previous meeting were read and approved. Communications were read and ordered filed. The name of Dr. Jacob Goldberg was submitted for membership and referred to the Board of Censors.

Dr. Robert A. MacKenzie reported for the committee which was appointed to consider a prenatal program, as follows:

"A meeting of your committee was held on May 10 at the Long Branch Hospital to consider the program for better prenatal service as proposed by the Monmouth County Organization for Social Service. At this meeting Miss Evelyn Walker, who has charge of the Red Cross and Public Health nurses throughout the county, mentioned the unsatisfactory records of Monmouth County in the matter of still-births and deaths of infants under 1 year of age, expressing the belief that more efficient methods of prenatal care would remedy this condition in large measure. She quoted statistics showing that Monmouth County is far behind the rest of the state and other states in this respect. She also voiced the interest of the county organization in a program designed to bring every possible indigent, pregnant patient in touch with the clinics of the 2 larger hospitals which maintain antepartum clinics. The 45 nurses scattered throughout the county, under Miss Walker, also hope to put on an educational program and be in personal contact, in homes where a new baby is expected, in time to bring about an early visit to a physician by those who are able to afford his services.

As the number of patients confined in hospitals in the year 1928 was only 660 as compared to a total number of more than 2000 births, the importance of this work can be appreciated. Furthermore, at least 35 nurses employed by the various agencies in public health work are availa-

ble to assist in the care of mothers with new babies at their homes, giving such services as the doctor in the case may desire and making such charges as he may approve.

The committee members interrogated Miss Walker concerning details of this program, the difficulties in the way of execution being quite readily explained and consensus of opinion was altogether favorable. We believe that we can recommend to the members of the Monmouth County Medical Society hearty endorsement of the project. In order to obtain, if the society approves, complete coöperation of all the members, we suggest that each member of the medical society be advised in a 'form letter' of the desire of the Monmouth County Organization for Social Service to be of assistance not only with clinic cases, but also with private obstetric patients. In this way it may be possible to interest in this prenatal program a number of physicians who do not regularly attend the meetings of this society, but whose assistance will be valuable."

The speaker of the evening was Dr. Harry Eisberg, of New York, who gave a very scientific address on "Intestinal Obstruction", showing lantern slides of data collected from experimental work.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A regular quarterly meeting of the Morris County Medical Society was held the evening of June 19 at The New Jersey State Hospital, Grey-stone Park, and President Lawrence M. Collins presided over an assemblage of about 35 members and guests. Routine business included approval of minutes of the March regular quarterly meeting and of the special meeting of April 16; also the transactions of the Executive Committee.

A communication was read by the secretary from Dr. Owens, expressing warm appreciation of the fraternal action of the society in sending him flowers during his illness, which he received Easter morning. Dr. Owens has been a member of the society since 1875.

Secretary Lathrope announced that missing minutes have been uncovered, so that they are now complete since organization of the society in 1816; also that the constitution and by-laws are ready for printing and will include an historic sketch of the society since its foundation.

The Treasurer's report showed a goodly balance; out of 85 members 78 have paid for 1930, leaving only 7 unpaid. The report was unanimously accepted.

Dr. Larson, for the Library Committee, reported a change of location of the medical library in the Morristown Public Library.

Secretary Lathrope, in connection with the Credentials Committee, announced that this committee is one to which the society at large can give a good deal of help by listing, in the first place, all of the medical men in the county who are not members of the society; that he thought if we could get a list of men who are eligible for membership, but are not members, it not only would be useful but would enable a drive for new members; he thought there might be 40 or 50 of these men in the county; also a list of licensed osteopaths and a list of chiropractors, and so far as possible, a list of irregular, illegal practi-

tioners; these to be reported to the members of the Credentials Committee—Drs. F. Grendon Reed, of Morristown and Denville; W. F. Costello, of Dover; and R. A. Eckhardt, of Madison.

The Nominating Committee reported the following recommendations of officers for the coming year, to be voted upon at the annual meeting in September, without abridging the right of any member to make nominations from the floor: President, E. Blair Sutphen; Vice-President, Fletcher I. Krauss; Secretary, George H. Lathrope; Treasurer, George B. Emory; Reporter, Marcus A. Curry. Members of the Executive Committee: the retiring President, Dr. Collins, with Drs. Williams and Pinckney; Delegate to State Society, Dr. McMahon.

The scientific section of the meeting was given over to Clinical Reports. Dr. Clifford Mills, of Morristown, reported on a "Series of Cases of Renal Calculi" and presented x-ray pictures indicating the procedures taken.

Dr. Albert J. Ward, of Morristown, presented cases of "Complex Bone Involvement and the Value of Blood Transfusion in Septicemia"; that he saw 3 cases where blood transfusion was the curative factor.

The clinical reports were received with much interest and invoked rather general discussion entered into by Drs. Lathrope, Larson, Frost, Jackson, a guest from Newark City Hospital, Young, Christian and Haven. The questions raised were adequately answered and information on specific points cheerfully given by the sponsors of the clinical reports.

The meeting adjourned to the hospital cafeteria where refreshments were enjoyed.

OCEAN COUNTY

George W. Lawrence, M.D., Reporter

Regular quarterly meeting of the Ocean County Medical Society was held at the home of Dr. Adolph Towbin, May 29, at 8 p. m. The following doctors were present: Dr. Towbin, President; Dr. Alfred Woodhouse, Secretary; Dr. Frank Brouwer, Treasurer; Drs. Sawyer, V. M. Disbrow, H. Disbrow, Carmona, Ripley, Denniston, Bunnell, Lawrence, and as guest Dr. W. E. Dodd, of Beach Haven.

The minutes of the annual meeting of March 11 were read and approved. A letter from the Health Committee of Greater New York, concerning health examinations, was also read. A letter from Dr. Charles A. Lindley referred to this Society by the A. M. A., protesting his being dropped from membership, was read and discussed. Also matters concerning other members of this society being dropped for non-payment of dues, or not paying their dues at the proper time, was taken up and a general discussion was had. Secretary Woodhouse was requested to notify Dr. Morrison that Dr. Carmona has paid his dues within the time limit and should be listed as a member in good standing. It also was voted that delayed dues should be forwarded to the State Treasurer as soon as received and that the persons involved should be reinstated to membership. Application of J. Edward Oberton, of New Egypt, for membership was referred to the Membership Committee. Dr. Ralph Jones' application for Honorary Membership was laid on the

table. Attention being called to the fact that druggists are prescribing in violation of the Medical Act and that already agents are checking up and making complaint involving druggists in fines, it was moved and adopted that the Secretary write all druggists in Ocean County calling attention to this act and their liability.

Resolutions regarding the death of Dr. Lewis, at Toms River were referred to proper committee; a letter to be written to Mrs. Lewis and copy of it to be placed in the minutes. Eight members of the Medical Society took a recent Post-Graduate Course, which was given at Asbury Park, and all were enthusiastic in praise of the course and benefits which they derived from it.

Some very interesting moving pictures were then presented by representative of the Petrolagar Company. After a vote of thanks for the same, and a rising vote of thanks to Dr. Towbin for a very elaborate and enjoyable dinner which he served just prior to this meeting, the meeting was adjourned at 9.30 p. m.

SALEM COUNTY

William H. James, M.D., Reporter

The Fiftieth Anniversary of the Salem County Medical Society was observed at the Salem Country Club on Friday afternoon, May 23, when nearly 50 physicians, wives and guests, with the officers of the State Medical Society attended. A typical planked shad dinner, Country Club style, was served and enjoyed to the utmost. Addresses were made by the state officers, an interesting history of the Salem County Society presented by Dr. C. M. Sherron, a charter member, and entertainment provided while the members of the medical profession and their ladies fraternized in a sociable way.

Hitchner's Orchestra supplied music during the dinner while "The Vikings" rendered vocal selections of a varied and pleasing nature, from solos to quartet numbers.

Dr. L. H. Hummel, president of the Salem County Medical Society, was toastmaster. The following officers of the State Medical Society brought greetings and made short addresses on the different phases of the state organization and what it is doing to progressively aid the medical profession: Dr. A. F. McBride, President, of Paterson; Dr. J. Bennett Morrison, State Secretary of Newark; Dr. Henry O. Reik, Executive Secretary, of Atlantic City; Dr. A. C. Crowe, Councilor, of Ocean City and Dr. W. P. Conaway, Past-President, of Atlantic City.

The following were in attendance: Vice-President and Mrs. F. L. Perry, of Woodstown; Secretary and Treasurer and Mrs. David W. Green, of Salem; Reporter and Mrs. William H. James, of Pennsville; officers of the Salem County Medical Society, Dr. and Mrs. R. M. A. Davis, Dr. and Mrs. C. M. Sherron, Dr. and Mrs. F. H. Church, Dr. and Mrs. Lee C. Hummel, Mrs. H. C. Whitehead and Mrs. Ida Davis, of Salem.

Dr. and Mrs. E. E. DeGroot, Dr. and Mrs. L. H. Miller, Dr. and Mrs. I. S. Callahan, of Woodstown, Dr. C. L. Fleming and Mrs. John M. Summerill, of Pennsgrove; Dr. and Mrs. G. A. Davies, of Elmer; Dr. P. M. Mecray and Dr. A. H. Lippincott, of Camden; Dr. M. L. Hummel, of Merchantville; Dr. and Mrs. L. E. Myatt, Dr. John Moore and

Miss Ida Squarewood, of Bridgeton; Dr. and Mrs. S. F. Ashcraft, of Mullica Hill; Dr. and Mrs. A. W. Phillips, of Philadelphia and Dr. James Hunter, Jr., Westville.

A BIT OF EARLY HISTORY

Dr. C. M. Sherron, one of the members at the organization of the Salem County Medical Society 50 years ago, had prepared a paper on the early history of the State Medical Society, its early practices, and of the Salem County Medical Society, which was read by Dr. C. L. Fleming, of Pennsgrove. The address in part reads as follows:

"We are celebrating today an anniversary in commemoration of the fiftieth year in the life of The Salem County Medical Society. In observing this event we are not only honoring ourselves but are paying homage to that small group of physicians who were instrumental in promoting this organization. It may be of interest to relate how our County Society came into existence, and also give a brief account of the formation of The State Medical Society with some contemporary medical history.

In our state the practice of medicine was in a low position, being beset by many difficulties and discouragements, very little advancement was being made, rather conditions were looking toward a decline. In the year 1766 it was proposed, with the hope of bettering the condition of the profession and to raise the standard of medical practice to its proper dignity, that a medical society be formed. In accordance with this a meeting at New Brunswick, on July 23, 1766, was attended by 14 physicians, and The New Jersey Medical Society was formed.

. . . The exalted professional position taken by the founders of the State Society was reflected in the character of its members, increasing the dignity of the profession and elevating that branch of science to its proper plane.

. . . . In the early history of our county the medical men were mostly self-appointed and plied their profession with such remedies as nature provided in the form of herbs and barks. These men were designated by the name of Botanic Physicians, and their treatment was potent, from the fact of being drastic in action. After the State Society came into existence that organization issued a license to all those who met the requirements of an examination, having attained a sufficient knowledge of anatomy, materia medica and surgery. Blood-letting was generally observed and calomel became almost a specific.

. . . . The only record remaining to indicate the existence of a medical society prior to the present one is a small book entitled, 'Rates and Charging for Sundry Articles and Service in Medicine and Surgery Agreed upon and Established October 30, 1848'. The president was Dr. Charles Hannah, but no record remains as to the other officers. Why this society should have lapsed is not determined, as it consisted of 14 members, some of whom were men of ability and education.

PRESENT SOCIETY FORMED

The present society was organized in the spring of 1880, a meeting being called for the purpose of discussing the necessity for and the value to be derived from an association of the medical profession of this county. This meeting was attended

by the following physicians: Drs. Thompson, Gibbon, Waddington, Bilderback, Theodore Paterson and Sherron.

A later meeting called to effect an organization was held at Woodstown on May 4, 1880. Dr. Quinton Gibbon was chosen chairman and Dr. C. M. Sherron, secretary. It was resolved to form a permanent organization under the title 'The Salem County Medical Society' and that application be made to the Medical Society of New Jersey for establishment as a district society to be recognized under the laws and regulations of same. The secretary was instructed to communicate with Dr. Pierson, of Orange, N. J., secretary of the State Medical Society.

In the election of permanent officers for the year Dr. Quinton Gibbon became president; Dr. J. H. Thompson, vice-president; Dr. Reed, of Woodstown, secretary and treasurer and Dr. C. M. Sherron, reporter. The following physicians were in attendance upon the meeting and being the first held by the Society they became Charter Members: Drs. Gibbon, Thompson, Waddington, Bilderback, McPherson, of Quinton, Allen, Gilman, Reed, of Woodstown, Johnson, of Pennsgrove, and Sherron."

SOMERSET COUNTY

J. H. Cooper, M.D.,

On May 3, those who had taken the post-graduate course of lectures received their certificates of attendance, all much pleased with the lectures.

The regular medical meeting of the Somerset County Medical Society was held on June 5, instead of June 12, on account of the state society meeting. Dr. Lawton, our president, was master of ceremonies as usual. The meeting was largely attended.

Dr. Myers gave a lecture on skin diseases, illustrated by pictures on the screen, all of which made his discourse most entertaining and instructive.

Obituaries

WASHINGTON, Walter Scott, of 520 Parker Street, Newark, died May 23, 1930, in his eighty-first year, after a brief period of illness.

Dr. Washington was born in Bowmansville, Durham County, Ontario, Canada, February 12, 1850, the son of John and Janet (Scott) Washington. He received his early education in his native town and at Bowmansville Collegiate Institute, from which he was graduated in 1869.

Dr. Washington came to Newark in 1887 and spent the balance of his life practicing here. He formed a partnership with Dr. J. D. Brumley, which continued for several years. In 1894 he was appointed Essex County physician, and held that position until 1902.

He was active in medical societies from the time of his arrival here. He was at one time president of the Essex County Medical Society and was a charter member and president of the Essex County Anatomical and Pathological Society.

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CANCER PROBLEMS WHICH DEMAND IMMEDIATE ATTENTION OF THE MEDICAL PROFESSION*

JOSEPH COLT BLOODGOOD, M.D.,
Professor of Clinical Surgery,
Johns Hopkins University,
Baltimore, Maryland

Before the Open Forum in Jacksonville, Florida, March 2, I ventured to suggest that control of cancer may be in sight, and summarized 9 contributing factors.

(1) Reorganization of the American Society for Control of Cancer, which was completed March 1.

(2) The Associated Press and the great daily newspapers are fast realizing that repeated and continuous publication of facts in regard to cancer will lead to the prevention of cancer of the mouth and skin, and perhaps cancer of the uterus, and will bring patients to treatment in the early stage of cancer when the chances of a cure are more than 50%. It is possible for the daily press in any locality to diminish the incidence of cancer from 80 to 17, and increase the cures from 10 to 50%, provided that locality so enlightened is supplied with a proper clinic for diagnosis and treatment of cancer. For diagnosis there must be pathologists trained to distinguish through the microscope the earliest stages of cancer, and roentgenologists specially educated in recognition of the disease through fluoroscope and radiograph. Treatment of cancer

today, after it is correctly diagnosed, in any stage, is surgery and radiation. At present there is no other treatment.

(3) What has been noted in (2) is not possible without aid of the medical, dental and nursing professions. A community enlightened, but not provided with the modern equipment and personnel of a cancer clinic, is not as well off as one with such clinic but without the enlightenment.

(4) A systematic course in primary schools not only on what every child should know about cancer, but on the common rules of health and the simplest data on preventive medicine.

(5) Passage by Congress of the Ransdell and Jones-Parker bills for the creation and administration of the greatest department of health, preventive medicine and research, among the nations of the world.

(6) Coördination of the American Medical Association, the American College of Surgeons, and all other national, state and county organizations, to influence the press and to standardize hospitals for diagnosis and treatment.

(7) Development of a public opinion demanding better protection against disease, better equipped hospitals, and more institutions for research.

(8) The medical and dental professions must be educated to meet the demands of periodic examinations and the diagnosis of disease in the earliest stages, and for research.

(9) Endow medical journals, so that the information we have now, or may acquire

* (Paper delivered before the Academy of Medicine of Northern New Jersey, at Newark, Thursday, March 20, 1930.)

later, can be transmitted to the world unabridged in space and illustration because of costs.

In conclusion, I expressed the opinion that the most important thing to do first is to influence Congress to pass the Ransdell bill, the Jones-Parker bill, and the Harris resolution.

After this address was written, and before it was delivered, something happened in Tampa, Florida, that demonstrated what can take place and will give to the people the essential facts in regard to cancer. Stopping over-night in Tampa, in the latter part of February, and sending for an old patient who had been cured of sarcoma of bone by amputation, I accidentally met an intelligent young woman, a reporter on the Tampa Daily Times. She was a friend of my patient and asked for an interview. I said that I would not give it for publication without the consent of the Tampa Medical Society. This was secured through the officers of the society and by the aid of an old friend of mine, Dr. J. C. Dickinson, there was planned a campaign of education. Previous to the public meeting, there appeared, first, on the front page of the daily paper, the interview which covered the ground of the address to be delivered in the Open Forum in Jacksonville on March 2. Then there followed daily for some 10 days separate articles giving the essential facts which every one should know for protection against cancer of the skin, mouth, breast, stomach, colon, rectum, bone and tumors of the soft parts. Not since the cancer week some 10 or more years ago has there ever been a better educational campaign by a daily journal. Fortunately, every one of these short articles had been written to be submitted to the 30 trustees of the American Society for Control of Cancer, with the view that, after they had been corrected, these articles would be given to the Associated Press and various newspapers as the essential facts which everyone should have for protection against cancer. I had these articles with me, and I hope some day they will be published in every newspaper in this country under the

title and authority of the American Society for Control of Cancer.

The next most important event has been the invitation of Drs. Coffey and Humber, of California, to appear before the subcommittee of Congress on the Harris resolution. This meeting took place in Washington, Thursday, March 13. From my observation this meeting demonstrated clearly 2 things: The first has already been stated—the urgent demand and necessity to pass the Ransdell and Jones-Parker bills and the Harris resolution. Second, the necessity for some authoritative body of cancer students and scientists to deal with cancer cures that are announced by the daily press so frequently and in such an optimistic way that reaching thousands of people suffering from cancer they raise false hopes of cure. For example, Drs. Coffey and Humber, of the Southern Pacific Hospital in San Francisco, were experimenting with an extract of the adrenal gland and thought they had observed some beneficial effects on patients suffering with cancer. The investigation and results reported before a medical society were taken up by the press and given widespread publicity. In spite of the frequent statements of these investigators that they did not promise a cure, that their work was entirely experimental, that they would not give the injections except in cases of a cancer that had failed to be relieved by surgery or radiation, hundreds of people throughout this country and the rest of the world rushed to California with the hope of receiving benefit. It was very fortunate that Senator Hiram W. Johnson, of California, Chairman of the Senate Commerce Committee, and Senator William J. Harris, of Georgia, author of the Harris resolution, conceived the idea of inviting Drs. Coffey and Humber to appear before this committee in Washington. It allowed these investigators to repeatedly state before this committee and to get into the public press that in their opinion these injections of an extract of the adrenal glands could not in any way be considered a *cure* of cancer, or, as they both stated, even a treatment of cancer. It was as yet purely an experiment.

They felt that they were justified in experimenting with hopeless cases of cancer which had passed the stage in which surgery or radiation offered any promise of relief. Before any patient received the injections, he was carefully examined by a specialist, and all patients having cancer suitable to be treated by surgery or radiation were refused the injection and advised to receive the well-recognized treatments.

It is very important to state here that if the Ransdell bill and the Jones-Parker bill and the Harris resolution had been passed by Congress, there would have been an authoritative body to deal with this situation, an organization which could at once send to California all or any of the cancer students in this country to investigate this experimental work, and in the shortest space of time and in the most effective and authoritative way announce to the profession and the public whether this extract of the adrenal gland is a cure or not, or whether it was even justifiable for anyone with incurable cancer to take the trip to California to receive these injections. The Ransdell and the Jones-Parker bills create a great institute of health in the federal department of health and will tremendously increase the activities of this well-organized and efficient department of the federal government. When these bills are on the statute books, the federal department of health will be able to do as much for protection of the people against disease as the agricultural department is able to do for protection of animals. Among the many new features is the provision that at any time, or in any emergency, the President of the United States, with the advice of the Surgeon General of the Public Health Department, and his advisory committee, may appoint from civil life any member of the medical, dental or nursing professions, or any scientist, to the Public Health Service with rank and salary commensurate with his position in civil life.

As this was not possible, Drs. Coffey and Humber asked for a special committee of cancer students, research, diagnostic and therapeutic, to come to California and make

the necessary investigation, and they were willing to abide by the decision of such a committee. Mr. William H. Buffin, Manager of the Chemical Foundation, has already offered financial aid. It is hoped that within a few days other foundations interested in cancer research and in cancer clinics will offer sufficient funds to allow representatives from the cancer clinics and cancer research institutions in this country to go to California and make this investigation.

Therefore, this recent experience shows the power of the daily press to bring news to thousands of people in such a way that, with or without consent of the medical profession, often against the advice of the medical profession, people leave their homes and spend much more than they can afford on traveling expenses only to find out that the statements made in the press are incorrect. Every effort should be made to influence the press to make no announcements of cures of disease, without consultation with an accessible, unbiased, authoritative body. The projected federal department of health could supply this and be also an organization that could immediately investigate the claim of any cure of any disease.

Without looking up the exact facts, I am impressed with the conclusion that the publicity accorded the experimental work of Coffey and Humber, as a cancer cure, without their consent or confirmation, is the greatest since the announcement—incorrectly—of Koch's serum for tuberculosis. We all must remember that today the transportation of news to all parts of the world can be almost instantaneous, and that large masses of people can be reached and influenced, either for their good or harm; an individual with a hopeless disease is most vulnerable of all.

To one who has given the education of the public continuous and serious study for almost 20 years, this recent publicity of a cancer cure that is as yet an experiment only and not a cure, raises the hope that ultimately we may obtain the same results with correct information through the press, and that we may influence the readers of the daily press who have not the disease but need

the protection of correct information, just as profoundly as we can influence those dying of the disease with false hopes by the announcement of a cure that is not a cure, or to rapidly get the announcement of a real cure to all affected with the disease, in the shortest space of time. Publicity through the press and radio with correct information has as yet never been tested to the limit. That is the next thing to do in this country.

In conclusion, one word in regard to the Jones-Parker bill. This bill which has been introduced in both houses of Congress provides for administrative statutes to make more effective the provision of the Ransdall bill. The Harris resolution applies entirely to the control of cancer. It has to do with a survey by a committee of Congress, with the aid of the federal department of health and the National Academy of Science, to find out in what way Congress can aid in the control of cancer. Practically all students of cancer at this time are of the opinion that Congress can give the greatest aid to the control of cancer by passing the Ransdell and the Jones-Parker bills.

Another very important problem which can be solved now is the distribution of radium irrespective of whether its costs may be reduced by the discovery of larger deposits of radium in this country. Every locality in the United States where there is a sufficient number of people should have a properly equipped cancer clinic with sufficient radium for patients either rich or poor. This is not a financial burden too great for any community of a certain size. This would make radium accessible to every individual in this country within a radius of less than 24 hours of travel.

New York State has given, or will give, to the Institute for the Study and Treatment of Malignant Disease, in Buffalo, \$300,000 worth more radium; increasing the amount of radium in the state's already organized cancer clinics. The governor and his advisers conclude that it is really more economical to the state, and more effective for cure of the disease, to have some patients travel a greater distance, than to attempt to reduce

the traveling mileage by increasing the number of clinics.

The experiment in Massachusetts with appropriation of more than \$200,000 a year for control of cancer in every possible way seems to be progressing with great success. Beginning Monday, April 14, there will be another health week in various centers in the state of Massachusetts under the supervision of Dr. Bigelow, Commissioner of Health. Massachusetts has its own cancer hospital with sufficient radium, deep x-ray machines, surgeons and pathologists. It is also meeting the expenses of many diagnostic cancer clinics and is carrying on a continuous educational program and a great deal of clinical cancer research. The work of the department of health is more and more receiving the cordial help of the entire medical profession, the dental profession and the established hospital clinics throughout the state. There seems to be no conflict whatever. There is no evidence that this is a movement toward state medicine, but simply a reorganization of the forces of the state for the control of a threatening disease—cancer.

I wrote my first article on the Control of Cancer, and it was delivered before the American Medical Association in Atlantic City, in 1913. There was very little to add to this paper for 10 years. This is the third article on the control of cancer within 6 weeks, and for each one there was new material. I am confident within a few months there will be sufficient progress to justify another.

DISCUSSION

Dr. E. J. Ill (Newark): After so brilliant an exposition as Dr. Bloodgood has given us, it would be hard for anyone to say more.

Dr. Bloodgood has drawn attention to just what we always try to do—talk to the people of the hopefulness of cancer; impress upon them that the hopefulness lies in the earliest possible treatment of the disease.

The diagnosis of cancer is becoming more difficult all the time. Why? Because our patients come to us earlier. At one time they would not come for treatment until the condition was so advanced that one could recognize and diagnose it at once. But today, they are coming so early, in many cases, that diagnosis can only be made through the microscopic examination.

I, for one, wish to thank Dr. Bloodgood for his fine exposition of this subject before practically a lay audience.

AN UNUSUAL MANIFESTATION OF HODGKIN'S DISEASE

MICHAEL VINCIGUERRA, M.D.,

Elizabeth, New Jersey

Mrs. A. B., aged 25, the mother of 2 children, was referred to me on October 28, 1927, complaining of cough, dyspnea, and swollen glands all over her body. She had noticed these glands for a year and a half, first in the right cervical region, then in the left



Some nodules in different stages of development; the one in the neck of keloid appearance.

cervical, the axillary and inguinal regions. Later on she began to feel and see nodules on her neck, chest, back, arms, and along the anterior border of the right tibia. She stated that the cough and dyspnea had developed after appearance of the glandular enlargement. No hemoptysis or night sweats. No family history of tuberculosis. She was subject to dizziness, and complained of having

had some rheumatic trouble. Her appetite was fair. She felt weak, but was able to attend to some of her household duties. Her menses were regular but scanty.

Physical Examination. Anxious expression. Dyspnea, with prolonged expiration, audible at some distance from the patient. Inferior turbinates markedly swollen, tonsils enlarged, follicles on posterior wall of pharynx hypertrophied. Right cervical and supraclavicular glands prominent, size varying from that of cherry pit to large cherry. Left cervical glands not so prominent nor so large. Glands in axillas large as a small pigeon's egg. Inguinal, popliteal, and epitrochlear glands markedly enlarged. All of these glands were hard, discrete, movable, and not painful. Nodules were seen on the neck, arms, back, and along the anterior border of the right tibia. About 50 nodules could be felt but not seen under the skin of the upper chest, more numerous on the left side. The feeling on palpation was like a subcutaneous emphysema, or like small shot of a semi-solid consistency. The visible nodules varied in size from that of a pin-head to that of a pea. In appearance they varied according to their stage of development. In the most recent, the central area was blanched; in larger ones, of a bluish-green color, and in those still more developed, of a dark red; the largest ones had a keloid appearance and consistency. These nodules, like the glands, were hard, discrete, not painful, and *never suppurated* (see cut.)

Lung findings were of a sub-asthmatic type, both on percussion and on auscultation; more marked in right upper lobe. Heart rapid, otherwise negative. Liver tender and enlarged; 2 in. below costal margin. Spleen not palpable, nor elicited on percussion. Nervous system negative, except for restlessness. No tremor of outstretched fingers. No exophthalmos.

Wassermann test, previously made, had been reported negative. Urinalysis negative except for a faint trace of albumin. Blood count showed 3,750,000 red cells, 3250 white cells and polymorphonuclears 65%. Hemoglobin (Dare), 70%. There were no immature

white cells circulating. Slight achromia, but no other red cell changes. Blood pressure, 96/66.

Radiography of the chest revealed considerable mottling in the upper portions of both lungs and in the periphery, resembling a tuberculous infection. Very heavy root shadows. Bases clear. Several rarefied areas were seen in the lower end of the left radius and in the lower third of the right ulna.

Biopsy. A skin nodule being removed for biopsy, the following report was returned: Epithelium atrophied; sheaths of epithelioid cells; very little necrosis, if any. A few lymphocytes, polynuclears, an occasional giant cell which shows acidophilic protoplasm, and signet-ring nuclei in corium.

Diagnosis. Subcutaneous tuberculosis.

The patient was given suprarenal substance, strychnin, and arsenic, and put on a high protein diet. On her next visit she was already looking and feeling better. She breathed more easily, and had been able to do more work. All the glands were very much smaller. During the following months she showed gain in weight and in strength, and her respiratory condition improved. During an attack of coryza, several times, after using adrenalin intranasally, she reported that her gums became sore and her teeth painful; no such condition was present at other times, nor did it occur after the use of ephedrin. There was continued diminution in size of the glands; little change in the nodules, but only occasional development of new ones.

For several months the patient did not report to me, but when seen on January 29, 1929, she appeared to be in greatly improved health. She stated that she had not coughed since the previous July. Her weight had risen from 108 to 120 lb. and her blood pressure to 120/64. The lungs were clear. Pulse 120. Very slight tremor of the outstretched hands. All glandular enlargement had disappeared, and no nodules could be felt. At the site of the nodules which had reached the keloid stage there remained a slight depression, of a dark reddish or bluish appearance, covered with corrugated skin. The patient said that she was feeling very well.

COMMENT

This case was of interest to me and my colleagues, inasmuch as we had never come across a similar one. The laboratory and x-ray findings at first only complicated the clinical picture. My first impression was that the patient was suffering from lymphatic leukemia, but the blood examination soon ruled out the leukemias, including leukemia-leukemia.

The appearance of the nodules was not such as to classify them as lupus erythematosus, lupus vulgaris, scrofuloderma, erythema induratum scrofulorum (Bazin's disease), or the nodules of acute rheumatism. Yet the biopsy diagnosis was "subcutaneous tuberculosis".

The clinical picture was further complicated by the interpretation given to the radiographic examination of the lungs, as "resembling a tuberculous infection". The impression made by the patient was not, however, that of a generalized tuberculosis of long standing. All this time she had been able to do her household work, and part of the time had cared for sick children. She had no night sweats, and only once registered a slight rise of temperature. Percussion and auscultation did not reveal the characteristic signs of pulmonary infection with Koch's bacillus. In a previous experience of 8 years in tuberculosis clinics and sanatoriums, I had never come across a case with such marked divergence between the clinical and physical findings and the amount of pathology revealed by the x-ray examination. The lack of harmony between the clinical observations and the laboratory findings was further increased by finding the patient, at the time of her last examination, restored to her usual health. She looked and felt well, had gained 12 lb. in weight, the glandular enlargement had disappeared, and the nodules had melted away. The case was of extreme interest to me. It was still a question in my mind how the clinical and laboratory findings were to be reconciled; all the data had to be reconsidered and correlated.

The history of the development of the

glands, first in the neck and then in other localities, together with the negative blood findings, aroused a suspicion that we might be dealing with a case of Hodgkin's disease. The nodules present in the latter affection cannot, in certain stages of their development, be differentiated histologically from tuberculous lesions. And if the microscope encounters such difficulty in making a differential diagnosis, the same is probably true of x-rays. (Reed, Ziegler, Byfield.) The remission which has occurred in this case speaks strongly in favor of Hodgkin's disease rather than tuberculosis (Byfield). Of course, it is known that these conditions can exist together, but the occurrence of so pronounced a remission would lead one to think that a single process was present, rather than 2.

A curious feature of the case was the occurrence of pain in the teeth after the use of adrenalin in the nose, and its absence when ephedrin was substituted. The reflex arc can easily be traced, but of the difference in the action of these drugs I have at present no satisfactory explanation.

PARTIAL GASTRECTOMY IN CANCER OF THE STOMACH; REPORT OF CASE

JOHN S. REITNAUER, M.D.,
Hoboken, N. J.

A disease of obscure etiology and carrying a high mortality rate is sure to be singled out for attack by the combined efforts of the profession. Such a disease is cancer, and such an attack was launched in the International Symposium on Cancer Control held at Lake Mohonk, September 20-24, 1926 (see *Jour. Surg., Gyn. & Obs.*, May 1927).

Carcinomas occurring in such areas of the body as may be seen or palpated by the patient receive earlier attention than those more deeply placed. It has been said that Americans are content with the perpendicular standard of health; i. e., so long as we are able to be about our economic affairs, the

rumblings of disorder from the department of the interior are ignored. This state of affairs lessens the interval between disorder and disease, a most important interval in relation to cancer.

There are no reliable figures concerning deaths due to cancer of stomach in this country nor in this state, but it is believed that gastric cancer is the cause of 30,000 deaths in the United States annually. It may occur at any age—in the ratio of 6 to 4 in males as compared with females—and shows certain familial tendencies which may be ascribed to cancer constitution; Napoleon, his father, brother and 2 sisters had cancer of the stomach. The commonest sites are pyloric region, 60%; lesser curvature, 25.3%; diffuse, 14%; cardia, 0.7%.

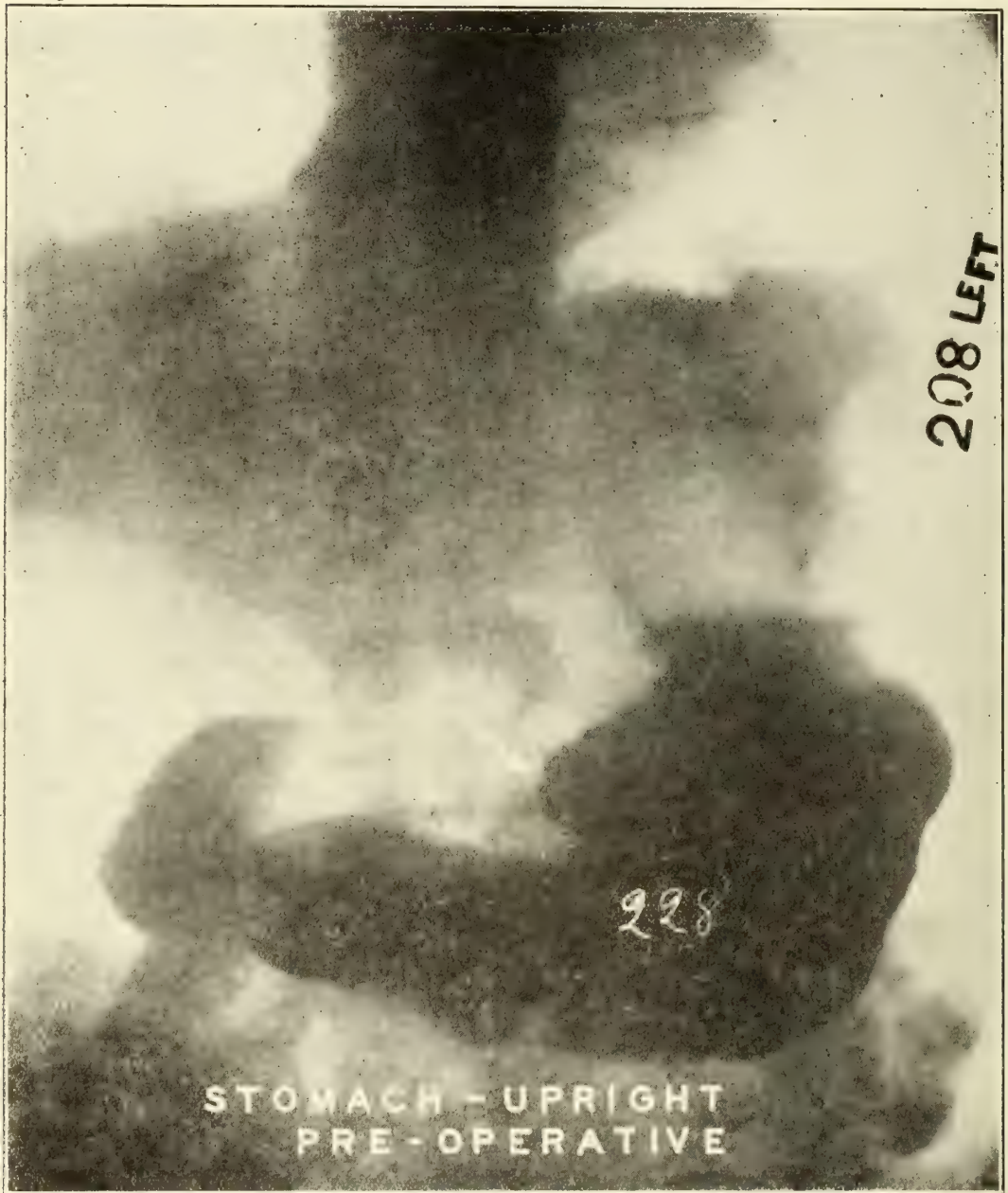
Etiology is indefinite but often ascribed to chronic irritation (ulcer), disturbed innervation with acid secretion, or focal infection; in trauma the blow is physiologic rather than physical. Rokitansky, in 1840, recognized the relationship of gastric ulcer to carcinoma. Moynihan states that 18.5% of excised chronic gastric ulcers are carcinomatous. Wilson and McCarthy (Mayo Clinic) claim that 71% of carcinomas originate in small ulcer. Lahey, Crahn, Rehfuess and others place percentages much lower. Duodenal ulcer is common; duodenal cancer is rare.

The classical text book description of carcinoma is not helpful in early diagnosis. The profession is apathetic or generally uninformed as to the early diagnosis, as shown by the fact that as many doctors as laymen apply for treatment in the late stages of the affection. The fluoroscope and radiographs are the best methods of demonstrating gastric lesions, 75% of which are cancerous. More than 9% of all chronic gastric ulcers excised at the Mayo Clinic in the past 11 years showed secondary cytoplasia. Lateral extension of the stomach has much the same distribution as ulcer and it has been shown by a number of investigators that this lateral extension is not more than 3 cm. from the visible portion of the growth; a chronic gastric ulcer more than 2.5 cm. in diameter is

probably carcinomatous; ulceration larger than a silver dollar is certainly carcinoma.

Onset of symptoms is sudden in a large proportion of cases; gradual in a small num-

structing effect of growth at cardio-esophageal junction or by associated cardiospasm from growth at the fundus. Gas eructation is a prominent and early symptom in carcin-



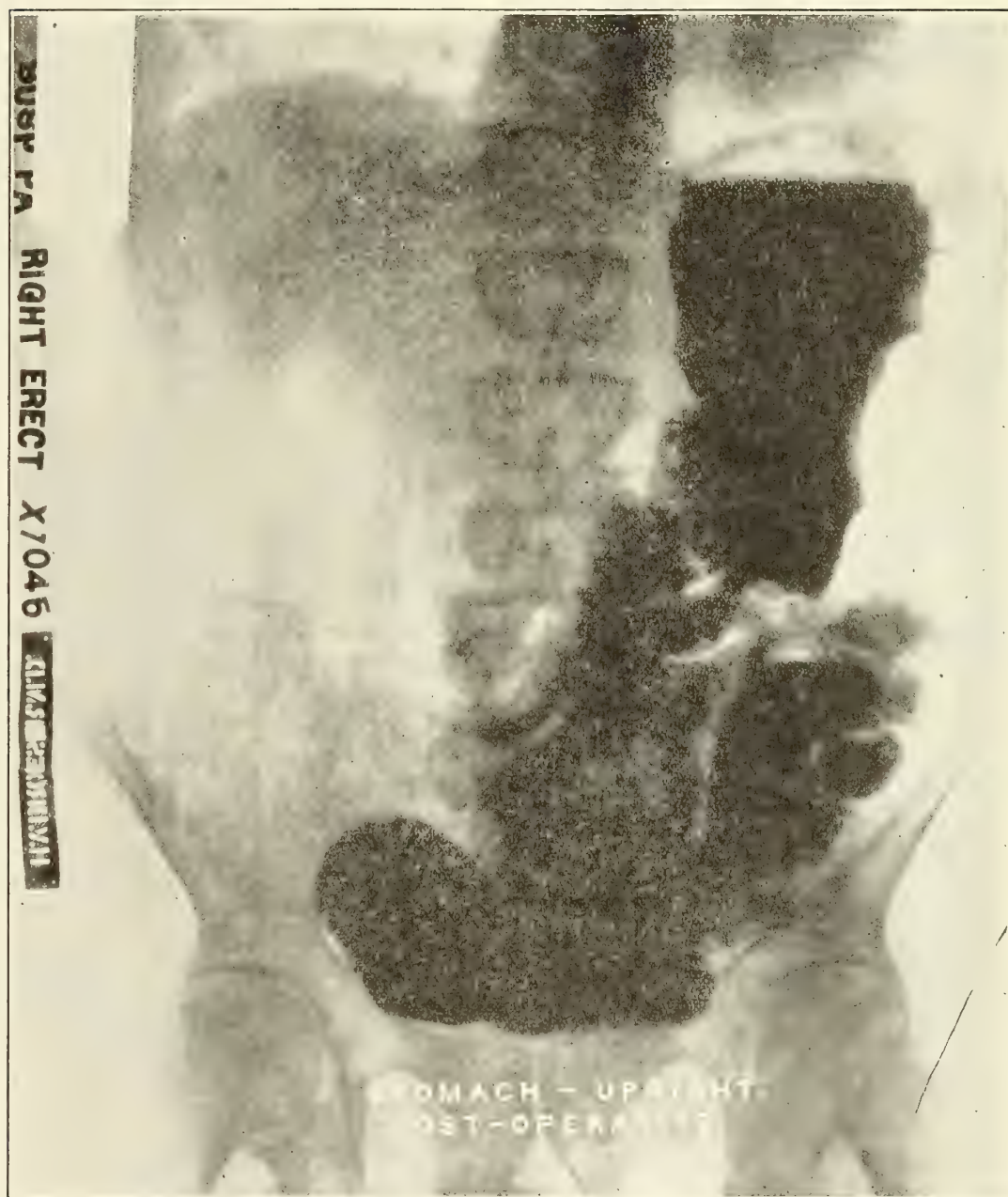
ber in which the cancer has developed from a preëxisting ulcer. Carcinoma of the fundus frequently gives rise to symptoms which point to the esophagus as the offending organ. Dysphagia may be caused by direct ob-

oma of the cardia; also bitter taste in the mouth, a sense of tension in the stomach, and rapid satiation (Albu). Excessive salivation has been mentioned as an early symptom of malignancy of the lower esophagus. Vomit-

ing is a constant symptom only in cancer of the pylorus, where it gives rise to obstructive phenomena. Pyloric carcinoma is the only type having a definite symptom complex.

Boas-Oppler bacillus complete the findings of gastric analysis.

Operability is determined by the patient's general condition; nutrition, physical find-



In clinical tests the most constant finding is occult blood in the gastric secretion and in the stools. There is diminution or complete absence of H Cl in only 49% of cases. Low total acidity, and presence of lactic acid and

ings, nature and degree of anemia. Signs of metastasis must be considered along with Roentgen findings in arriving at a decision. In juvenile patients there is absence of cachexia, early onset of high temperature and

early formation of metastasis. One differential clue is progressive anemia with constant pain. Factors influencing the surgical attack are the situation and fixation of the growth.

Operative mortality is about 10% immediate; remote probably higher. Gastro-enterostomy is palliative in obstructive lesions but life expectancy is only one month longer than without surgical intervention. In difficult resections general anesthesia may be desirable. The type of operation depends upon location, size, and fixation of the growth. Recurrence of ulceration is lowest after resection with end-to-side gastrojejunostomy. Life expectancy estimated in a series of 1000 cases seen at Mayo Clinic where all the lymphatics were involved: 10% lived more than 8 years and 19% were alive after 3 years; where lymphatics were not involved, 52% were alive and well at the end of 3 years. Early diagnosis enhances the permanency of surgical cure, by permitting intervention when extirpation may be complete. Temporizing, once diagnosis is made, may result in loss of valuable time, because cancer never sleeps.

REPORT OF CASE

Chronic, Perforating, Carcinomatous, Gastric Ulcer. The patient, male, aged 62, was admitted to private service February 26, 1929. Wife died following child-birth with complication of tuberculosis; 1 son died of tuberculosis of the spine. Had himself suffered 2 attacks of pleurisy; 1 month and 1 year previously. His chief complaint was epigastric pain, aching in character, coming on about 5 to 8 p. m., lasting 2 to 3 hours, occasionally until 2 a. m., and relieved by hot drinks. Patient presented himself because of this pain, which required about 1 gr. of opium per day to be endurable; weight 146 lb. 1 year before; loss of weight 41 lb.

Skin showed a slight yellow tint suggestive of anemia. Slight dulness over right lower lobe posteriorly; visible impulse over precardium. In abdomen a palpable mass, deep, fixed and tender on palpation. Gastro-intestinal x-ray series showed 5% retention, and protrusion of lesser curvature.

Operation. On March 4, 1929, under gas-ether anesthesia, a median incision, ensiform to umbilicus, was made. Stomach delivered and walled-off with pads. Inspection disclosed an indurated mass on the posterior wall nearer the lesser than the greater curvature and in the cardiac region. Stomach adherent to pancreas in the ulcer area. Omental vessels ligated and divided from the pylorus to well beyond the ulcer area. The duodenal stump inverted. Stomach sectioned through healthy area at a line parallel with the esophageal opening, entire lesser curvature removed, all palpable glands excised, and anastomosis performed between a coli of jejunum and remaining portion of the stomach; antecolic end-to-side gastrojejunostomy without entero-enterostomy of the distal loops.

Patient was allowed out of bed on the twentieth day, this delay being necessitated by low pressure and unhealed condition of abdominal incision. He was discharged from the hospital April 1, 1929, with no complaints. The pathologist's diagnosis was carcinoma with perforation: a circumscribed area of ulceration at the cardiac end measuring 3 cm. in diameter; in the midportion a ragged through-and-through perforation that measured 5 cm. in diameter with surrounding wall thickened and infiltrated. The malignant process may be secondary to the ulceration, for where the epithelium was denuded the wall presented no epithelial cells.

HYPOCALCEMIA WITH LOWERED BASAL METABOLISM AND TEN- DENCY TO BLEEDING; RE- PORT OF CASE

HYMAN I. GOLDSTEIN, M.D.,
Camden, New Jersey

In January 1929 a young professional man, aged 29, came to my office complaining of attacks of migraine and severe headaches, off and on, for the past 15 years. At this time he was having attacks only several times a year. He complained also of drowsiness and

inability to keep awake in the evening. Occasional nose-bleed, which earlier in life was quite frequent; before 1925 he had some severe nose-bleeding; some pains in the knee joints. His past history recorded diphtheria, typhoid fever for 6 weeks in 1927, and pneumonia; 3 attacks of rheumatism; nose "blocked up" frequently; headaches relieved by sleep; tonsillectomy several years ago was followed by severe secondary bleeding; denied venereal disease; married, and has 2 children; wife has had no miscarriages; mother is a mild diabetic; father and 2 brothers had frequent nose-bleeds; father suffers from "hypertension"; 2 brothers and 1 sister living and well; brothers also bled profusely after tonsillectomies.

Examination. Weight, 170 lb.; height, 5 ft. 10 in.; eye reflexes normal; sharp vision in each eye with low amount of far-sighted astigmatism; teeth negative; distinct clouding of left antrum; haziness suggestive of chronic pathology of mucous membrane rather than free exudate; other sinuses negative; evidence of rheumatic myocardial and endocardial damage of moderate degree; lungs, negative; blood pressure 110/78; urinalysis, Sp. Gr. 1.012, acid, no albumin, no casts, urea 0.9%, no sugar, few pus cells, no urates; blood Wassermann tests negative; blood sugar 90 mgm. per 100 c.c. blood; basal metabolic rate minus 25%; blood count—hemoglobin 96%; R. B. C., 930,000; W. B. C. 10,000; blood platelets 290,000; polys 59%; small lymphs 38%. Blood calcium, 7.9 mgm. per 100 c.c. blood; bleeding time $2\frac{1}{2}$ minutes; clotting time 11 minutes.

Treatment. Tonsillectomy for removal of remaining right tonsil; submucous septal resection; puncture of left antrum; administration of calcium gluconate and calcium-chloride-urea intravenously in 10 c.c. (10%) doses; parathormone hypodermically; thyroid extract by mouth in increasing doses; general ultraviolet therapy. As a result, the patient rapidly improved. He withstood the operations on nose, throat and maxillary sinus without trouble and without undue bleeding. March 27, 1929: normal basal metabolic rate (minus 4%); blood calcium

11 mgm. per 100 c.c. blood; urea-nitrogen 12.5 mgm.; creatinin 1.4 mgm.; uric acid 3.8 mgm. April 4, 1929: blood uric acid 4.3 mgm. per 100 c.c. blood; urea-nitrogen 12.5 mgm.; creatinin 1.2 mgm.; calcium 11.2 mgm.; pulse regular; heart action stronger. Patient "feels fine", alert, able to do more work, is more active, does not feel "sleepy and drowsy", and pains are gone.

DISCUSSION

The question of diagnosis in this case was rather complicated, though very interesting. In view of the history of frequently recurring nose-bleed, in this patient and in several members of his family, the diagnosis of "familial epistaxis" without typical "hereditary hemorrhagic telangiectasia" (familial) was to be considered. It is also of interest that one brother's wife and her father and brothers are all nose-bleeders. There are several other members of this family who bleed from the nose, but I am not informed as to the presence of any telangiectatic lesions in these cases. The patient had a definite lowered basal metabolism with low blood calcium and a low grade of "rheumatic infection", which may have accounted for the entire picture, caused by the various foci of infection in his nose, sinuses, and tonsils. It is important to remember that patients who suffer from recurrent epistaxis are predisposed, apparently, to attacks of rheumatic fever and hemoptysis. This was shown by Sutton (1864) and others. Hoffman, also, has stated that those who suffer with frequent and copious epistaxis in early years, are often subject in youth and adult life to hemoptysis and phthisis, and in middle age to gravel and gout. Sutton found that during phthisis, epistaxis often occurred before the attacks of hemoptysis. I have not found in literature any case exactly like the one here reported.

Before going to Europe last spring, I had occasion to treat several cases at the Mount Sinai Hospital Medical Clinic (Philadelphia) and in private practice, showing hypocalcemia, headache, "drowsiness", or migraine-like attacks, in which I made the diagnosis of

petit-mal. Administration of parathormone injections, afenil or calcium gluconate intravenously, kalzan or calcium (Sandoz) by mouth, ultraviolet ray therapy and occasional doses of luminal, brought surprisingly good results. In the case here reported, the question of migraine, petit-mal, and hereditary telangiectasia with epistaxis (familial type), and with hypothyroidism were all considered.

TUBERCULOSIS AND PREGNANCY*

IRVING WILLNER, M.D.,

Assistant Director, Division of Tuberculosis,
Department of Health,

Newark, N. J.

The era of specialization has led many physicians and surgeons to limit practice to certain branches of medicine. The specialist is considered a clinician who should know something of every disease and everything about one disease. Men in a chosen field of medicine often become so blended by their specialty that they lose sight of the fact that there are other portions of the human anatomy that may account for ailments in their particular field. The enlarged uterus is usually the least of the cares of the physician skilled in child-birth. He considers the mental and physical make-up of his patient of greater importance. The pregnant woman differs from the nonpregnant because the strain of labor often activates, aggravates or spreads a quiescent or inactive disease. This is especially true in pulmonary tuberculosis.

The tubercle bacillus multiplies in a pregnant woman rapidly because, of the strain on her condition produced by gestation. With the spread, there occurs liberation of endotoxins produced by the organisms. As a result, there occurs a toxemia which affects the sexual organs and the internal secretory glands which control functioning of the sex apparatus. The depressive and damaging action on the adrenals and other glands has

been demonstrated both clinically and experimentally. There occurs an irregularity in the menstrual cycle. This disturbance may be caused by the general disease throughout the body or by the involvement locally of the fallopian tubes, uterus or ovaries, which conditions may be primary or secondary. Absence of menstruation, or amenorrhea, is very common. The frequency of this condition led physicians of the past century to consider that cessation of menstruation was a cause of tuberculosis. Menorrhagia, metrorrhagia or dysmenorrhea, often occurs. However, there may be no disturbance of the menstrual function and cases are seen frequently in which there is no irregularity of menstruation throughout the entire course of the disease.

Tuberculosis of the female in no way renders immunity to pregnancy. On the contrary, she becomes more susceptible and pregnancy may occur during any stage of the disease. Reibmeyer considers that the tuberculous woman is more fruitful and will become pregnant more often than the healthy woman. It is of interest to note that old clinicians recommended marriage to tuberculous girls because they were of the opinion that in pregnancy the disease was held in check. Dr. E. Warren, in 1857, stated that "pregnancy and coitus are particularly desired by women affected by phthisis, which constitutes a pointing of nature toward a remedy for the evils by which the system has been invaded". He quoted many authorities as coinciding with his view. During the course of pregnancy, there is usually considerable improvement in the patient but she usually declines rapidly with the termination of labor; due to the fact that during pregnancy most symptoms are quiescent and later light up with rapidity and spread after the child is born. Labor stimulates spread of the disease in the lungs. Gestation subjects the system to considerable strain and the same condition is produced by nursing a child; and these factors often lead to activating a quiescent condition or spreading an early involvement.

There are some scientific enthusiasts who

* (Read before Clinical Meeting of Newark Maternity Hospital Feb. 25, 1930.)

recommend that tuberculous persons should be prevented from marrying. This is radical and cannot be controlled. However, married tuberculous women should be instructed in methods of preventing conception. Abortion is recommended in all early cases and should be done in the first pregnancy following onset of the disease. Abortion should also be performed when the disease is recognized in the early months of pregnancy. This gives the patient an opportunity to receive proper treatment and undergo climatic changes rather than subject her to spread of the tuberculous process which may result in her death.

In the latter months of pregnancy premature labor is advisable. When the pregnant woman is seen toward the end of labor, for the first time, it may be advisable not to induce premature labor as in such cases the strain on the patient is as bad as labor at term. Where the disease is seen late and where it appears due to rapid spread and the condition of the mother is such that she will not live to the end of pregnancy, premature labor may be induced to save the child. The immediate effect on the child is not serious, although cases have been demonstrated where the tubercle bacillus has been transmitted to the fetus in utero. This condition, however, is rare, and many children with proper care, although the off-spring of tuberculous parents, develop into healthy, useful members of society. When pregnancy has been terminated by spontaneous, artificial or normal modes, the children are usually born without signs of the disease. The ultimate effect, however, is more serious because of danger of tuberculosis by contact. The mother should never be permitted to nurse her child because the extra strain may further affect her health and because the tubercle bacillus may be excreted through her milk.

Artificial pneumothorax has been recommended in tuberculosis where pregnancy is present, when there is involvement of a single diseased lung. Considerable work along this line has been done within the past few years by Dr. Rist, of Paris. He advises that when pregnancy is desirable or neces-

sary, and where one lung is involved, that lung be collapsed. He feels that abortions may be dispensed with when pregnancy occurs during already instituted pneumothorax treatment. The collapse of a lung by insertion of air into the chest may be advisable in certain select cases where but one side of the chest is involved. In most cases, however, we find that both lungs are diseased and in such a condition, artificial pneumothorax is dangerous. Where such procedure is to take place, it should be done by a specialist in lung diseases.

In conclusion, pregnancy should be interrupted wherever possible in the tuberculous woman. Experience has demonstrated that pregnancy in the tuberculous mother usually causes so rapid a spread of the disease that it ends in her death. It is true that in certain cases of chronic tuberculosis a woman may go to term without any complication or spread. It is not advisable, however, to permit the patient so great a risk. In the early months abortion is advisable and in the later months premature labor. The early diagnosis of tuberculosis in the pregnant woman is of the greatest importance and the history of constant cough, night sweats, loss of weight, etc., should be thoroughly investigated, and where any signs or symptoms of the disease are present pregnancy should be terminated. In special cases where there is involvement of a single diseased lung and where pregnancy is necessary, artificial pneumothorax is recommended.

Opinions upon the effect of pregnancy on pulmonary tuberculosis are very contradictory. Most men believe that a tuberculous woman should be aborted up to the fourth month of pregnancy. Some state that a tuberculous woman should not be aborted during any stage but should be given fresh air, sunshine, rest and be treated like any other tuberculous patient; and under such circumstances she will pass through a normal pregnancy. Others feel that pregnancy and labor cause the pulmonary disease to become actively progressive no matter how careful the attention might be, and they feel that interruption is always advisable. A common opin-

ion is that even if the effect on the patient during pregnancy is slight the after effect is most deleterious and that patients with active lesions practically always become worse; there might be a destructive lighting-up or progression of the disease. Some cases will abort themselves in the latter months of pregnancy. Dr. Austin Flint feels quite strongly that pregnancy in active tuberculosis does hasten the disease and shortens life so he has always advised that it should be interrupted. He uses temperature as a guide and believes that if there is any fever during the afternoon, it is sufficient indication for interruption; if there is not, he allows the pregnancy to go on. Some physicians feel that when interruption of pregnancy takes place, the patient should be sterilized. The question as to advisability of interruption of pregnancy is not settled by any means. In late pregnancy little or nothing is to be gained, except in rare instances in which it is doubtful if the mother will live until full term, when the termination of pregnancy may be considered wise in the interest of the child. Recent statistics appear to show that the woman with tuberculosis reacts no differently than the woman without, considering that women who have no lesions very often suffer ill effects from other causes. The main factors appear to hinge upon a thorough study of the individual and ascertaining the degree of activity of the pulmonary involvement, duration of pregnancy at the time tuberculosis is discovered, desire of the parents for children, and the economic conditions surrounding the woman.

OUTLINE; TUBERCULOSIS (PULMONARY)

M. W. CURRAN, M.D.,

Major, Med. O. R. C., Superintendent of the Pines
Camp and Bungalow Sanatorium for Tuberculosis

Chatsworth, N. J.

The causation of tuberculosis is merely incidental to successful invasion and attack by pathogenic bacteria establishing new quarters in the human or animal body. Bacteria are not dangerously active by their mere

presence, but through the poisons or toxins they produce. Bacteria may enter tissues of the body at times without producing disease; due to the vital resisting powers of the individual. Pizzini demonstrated that lymphatic glands removed at autopsy from subjects who were never suspected of being tuberculous, who died following accidents, contained virulent tubercle bacilli whose presence was revealed by inoculation into susceptible animals, such as the guinea-pig. To favor an infection, bacteria possessing virulence must invade the body and find a receptive environment, aided by lowered vitality of the host, for progression of pathogenic effects. The resultant type of disease depends upon the ratio between toxicity of the infection and the opposing power of the individual.

Tuberculosis is due to the growth in the lungs, or less frequently in other parts of the body, of the *Bacillus tuberculosis*. The great frequency of so-called primary tuberculosis of the lung is due to the immense surface which it presents, yet infection may have occurred by way of any lymphatic or blood route, and possibly has remained latent for years before the appearance of disease in the lung. The avenues of infection and the tissues attacked alter the type of disease. If the tubercle bacilli enter the skin they produce lupus; if swallowed, they cause ulceration of the intestines, and subsequently invade the peritoneum; if inhaled, tuberculosis of the air passages may follow.

An invalid with an open lesion can expectorate about 7,000,000,000 bacilli in 24 hours; therefore, in civilized regions, infection with tubercle bacilli is well nigh universal. It is considered difficult to communicate tuberculosis to animals by making them inhale dry dust, but infection may be easily effected by the inhalation of fine liquid droplets which contain tubercle bacilli in suspension.

The bacillus may penetrate the pulmonary tissues: (1) by ingestion, (2) by inhalation, (3) through the blood stream, and (4) through the lymphatics. In hereditary tuberculosis the possibility of transmission by the sperm is rejected, but infection by the ovum is accepted. Individuals who are in a healthy

condition are generally able to resist the invasion, holding the infection in the lymphatics, the peribronchial, tracheobronchial or intestinal glands. This conflict between parasite and host may end very early in favor of the entertainer. The presence of invasion may not be suspected during life. When the patient's vitality is below par, the converse of that proposition obtains. The bacillus will pass from the barrier in the glands and journey through the organism by way of the circulation, producing an acute tuberculosis; or by the lymphatics, in which case a chronic process sets in. Usually, however, there is a close balance between the resisting power and the virulence of the infection.

It is generally accepted that the incidence of tuberculosis in any country, in both sexes and at every age except infancy and childhood, reflects with great precision the living and industrial conditions that prevail. Adults enjoy a relative immunity because they are already infected. This, however, can be overcome by re-infection by tubercle bacilli in considerable numbers, or by other conditions, such as malnutrition, which lower resistance. There is scarcely an adult who does not react to tuberculosis in some way.

A patient enters your office complaining of a persistent cold or hoarseness that seems to stick; he has tried everything for it (your loyal helper the druggist has had him first), but nothing relieves him; he has lost his appetite, tires easily and feels miserable generally. Evidently this is a sick man who demands immediate and lasting relief. All medical literature prefaces an examination of the patient with the advice: first, ascertain a complete family and personal history; learn his mode of life and surroundings and, through his family record, the probable influence of hereditary disease diathesis or liability; then trace the beginning of his present trouble, and your fallacious guess-work conclusions will probably be absolutely untrustworthy. Punch's advice to those about to marry—*Don't*—seems germane here. Never question your patient concerning his history, habit or environment until you have made your physical examination and noted your

findings. It may help you *after* your observations, but *before* it is simply irrelevant, immaterial and usually misleading. Tuberculosis plays no favorites, and there is no typical appearance of shape or size in persons attacked. They may be tall or squatty, fat or thin, sheiks or otherwise, good or bad, old or young. There may or may not have been other cases in the family, which in a long series of cases may have some remote value. But for the particular patient before us, those findings are simply rubbish. A noted realty operator in a recent issue of the Saturday Evening Post declared that only about 10% of the families in this country own their homes. Changing our habitation is a national custom. Why ask a patient if anyone in his family has been exposed to dangers of infection, which he may truthfully deny, yet the tenants who previously occupied his home, room, or living quarters may, unknowingly to him, have been tuberculous. Why waste time and effort in trying to find out if a patient has a tuberculous history when we know that infection is nearly universal. Confine the examination to objective fact, to physical diagnosis. You may listen to the patient's story, but do not give weight to statements not supported by physical signs. In tuberculosis the patient becomes accustomed to everything that recurs daily—cough, temperature, lassitude—this is one of the reasons for his delusions as to condition and prognosis.

The diagnosis must be made on the physical conditions and on these alone. In other words, we first observe facts, and interpret the same; which leads by the inductive method to recognition of a certain existing disease. The diagnosis of pulmonary conditions suffers from the sins of omission of the examiner rather than from a too minute clerical attention to unimportant variations from the assumed normal.

Do not be misled or led to exercise faulty judgment by the extremists of the "early diagnosis cult" when they tell you that if physicians were alert and keen, and not too ignorant, they could save every consumptive life by diagnosing the disease at its first

flicker. Never make a diagnosis of pulmonary tuberculosis unless you can prove it. You may have your beliefs, and you may treat your patient for tuberculosis, but do not make an error, because if you mistake some mild ailment for tuberculosis, the result may be disastrous. It may mean abandonment of a lucrative career, separation from family, and an unavoidable amount of varied anxieties. Today a throat or lung lesion, which obviously is not something else, is diagnosed as tuberculous.

Meissen: "The fear of being regarded as a poor diagnostician leads to making of the diagnosis on uncertain and slight indications."

Roepke: "Ten per cent of the inmates of German sanatoriums are not tuberculous."

Frankel: "The reason for errors in diagnosis lies in the fact that too great value is placed on relatively insignificant findings."

Muller: "I know several cases in which patients have been treated for years for dullness at apex, the autopsy showing normal apices."

Rist: "At my suggestion the medical officer in command ordered all the men coming from the front with a history of coughing, blood-spitting, pleurisy, or with a diagnosis of tuberculosis, to be taken to a clearing station. * * * * As a matter of fact, between 80-90% of those supposedly tuberculous soldiers were not tuberculous at all."

Bezanen and Seyent bring forward other facts which corroborate those views. Colonel Bushnell, the peer of them all, "has been surprised in his professional experience to see upon what slender basis the diagnosis of pulmonary tuberculosis is often made".

Tolstoi wrote in his diary, in 1903: "It seemed to me that one of the errors in medicine is an excessive refinement of methods and apparatus, where mistakes are easily made. I do not wish to belittle those refinements, but at the same time I do not think physicians should lose sight of elementary principles in the cause and treatment of disease."

Now we will return to our patient and have him strip to the waist, bearing in mind that a miracle is a fact inaccurately observed, and appreciating the necessity of vigilance in our observation of color, form and action.

Inspection. Stand directly in front and compare both sides. Flattening of the chest over apex, and diminished respiratory movement over the affected area would indicate consolidation in that region. The vigor of costal excursion over any pulmonary region mirrors the extensibility of the underlying lung. Because extensibility is the first attribute affected in all pulmonary diseases, any impairment offers the earliest evidence of regional lung disease.

Palpation. Patient and examiner must both relax. If your hands are tense when placed on patient you are going to get fremitus from your own tissues. Have your hands warm, and lay on gently, as your tactile sense becomes impaired by undue pressure. When the palm of the hand is applied to the chest of a speaking person, a diffuse, vibratory sensation is perceived, usually with greater intensity on the right than on the left side. This is known as vocal tactile fremitus. It is increased over areas of consolidation, except where pleura is thickened, when it may be reduced.

Percussion. When percussing, the finger struck should be firmly pressed against the chest, and by preference is the second finger. Strike at the root of the nail, and always with the same force; that derived from movement of the wrist is enough. Percuss symmetrically or in straight lines; light percussion for superficial structures, heavy percussion for deep structures. Always begin to percuss in front in the axilla. You have probably been taught to begin at the apex and *percuss downward*—don't do it! Establish your normal note first, and *percuss upward*, and you will avoid a great many errors in percussion. If you percuss from above downward, you may carry a dull percussion sound to the fourth rib; whereas if you had percussed from below upward, you would have noted dullness only to the second rib.

By percussion we learn as to the relative distribution of gases (usually air), fluids and solids in the structure examined, and we note the quality (or timbre), the pitch, and the intensity of sounds. Other things being equal, the greater the volume of matter set in

vibration, the greater the intensity of the sound.

Auscultation. Gives information concerning the movement of air and fluids, the comparative calibers and lengths of the tubes through which the air passes, and the presence in the air path of matters capable of acting as reeds in the production of musical tone. In listening to the breath sounds, have patient breathe deeply and quietly. Use the same stethoscope; the use of a variety bewilders.

The normal respiratory sounds consist of a soft breezy inspiration—the normal vesicular murmur—followed by a scarcely audible, briefer expiration. The character of breath sounds may be altered and their rhythm deviate from the normal. They may be exaggerated, puerile, intensified, harsh and raised in pitch. Dry râles may be heard; sibilant if generated in small tubes; sonorous if generated in large tubes. Isolated sibilant râles are usually indicative of pulmonary tuberculosis. When vesicular murmur is partly obliterated, the breathing is termed vesiculo-bronchial; if the bronchial element predominates, bronchovesicular; when vesicular quality is lost, the breathing is termed bronchial, tubular or blowing; where there is a cavity, the breathing may be cavernous; and with a tense cavity wall and small orifice connecting with a bronchus, the sound is amphoric. Secretion in the bronchial tubes causes râles qualified as moist; subcrepitant if in small tubes, mucous if in the larger. Exaggerated or harsh breathing is compensatory in character; it indicates disease of the corresponding lung.

Kronig's isthmus. Now percuss Kronig's isthmus to see if it is narrowed. (The isthmus is the narrowest portion of the lung lying above the clavicle in front and the spine of the scapula behind). If you find a narrowing of the isthmus and a sagging of the apex, shown by depression above and below the clavicle, you know that it is not acute tuberculosis, because in that condition you get a congestion not a contraction. If it is a chronic tuberculous lesion, you must find whether it is an active or inactive disease, and

will determine that by auscultation. You have read in many places that the earliest possible sign in the incipient stage of tuberculosis is prolonged expiration. That is all wrong, as you only get those sounds in the presence of connective tissue, which causes the sound to be carried by the bronchi to the surface more readily. You don't get these sounds from *congested* tissue, but from *contracted* tissues. Changes in breath sounds do not show whether it is an active or inactive disease; they are simply corroborative of a chronic lesion in the apex.

You can always prove whether condition is active or inactive by the presence of persistent fine râles. Auscultate following exhalation and cough. Starting from the state of rest of the lung, the patient forcibly expels the air from the lungs, reserving the last portion of the expiration for a short cough, after which inspiration immediately follows, but only enough air is inhaled to return the lung to the state of rest. The idea is to diminish the size of the bronchi as much as may be by expiration, then cough to stir up forcibly such fluid as may be present. The moisture is more likely to be moved by the current of air, and so produce râles, when the tubes are of their least caliber. This examination is essential in every case, and every practitioner should become an expert, as its correct application is more valuable than reams of the genealogic, sociallogic or eugenic history of the patient.

Any cold or bronchitis limited to one side is suspicious, and if such symptoms are confined to the apices the suspicion is doubled in value; and any bilateral bronchitis at the apices deserves special attention. If in examining the supraclavicular spaces by digital pressure there is disclosed a fixed point of tenderness, or you find rolling beneath the finger, like leaden shot, a few small enlarged lymphatic glands, you should be guarded in expression respecting duration and prognosis.

Acute tuberculosis. There is no change in percussion note, no narrowing of the isthmus or change in breath sounds; shower of

fine, persistent râles in one apex extending down to the third dorsal vertebra.

Chronic active tuberculosis. Contracted apex, narrowing of the isthmus, change in breath sounds and tubes, but not persistent fine râles.

Chronic inactive tuberculosis. Contracted apex, narrowing of isthmus, change in breath sounds, but not persistent râles.

Acute or chronic bronchitis. Scattering of râles over the whole chest, mixed râles in the base over both lungs and some fine râles above. Râles occur with no reference to inspiration or expiration.

X-ray examination. The characteristic mark of tuberculosis, as shown on the x-ray plate, consists of a fan-shaped density with the base of the triangle toward and near the pleura, and with the apex toward the helium of the lung and connected to it by a heavy trunk. If the fine linear markings of a given trunk are faintly obscured by a cloudy or fuzzy effect, an active lesion is suspected; but if the linear markings in a limited area are sharply defined and dense, a healed lesion is suggested.

We do not see tubercles in the x-ray picture any more than we see the bacilli. What we see is sharply outlined calcifications and fibroses, or fuzzy congestions, or a combination of these conditions. We see only the result of tuberculous inflammation. Do not imagine that a lesion in the apex so mild in character that it cannot be detected by the auscultating ear will be disclosed by an x-ray examination.

TREATMENT

The earlier treatment is instituted in pulmonary tuberculosis, the better for the patient and the greater the chances of an ultimate cure. Treatment consists of several essentials: fresh air, rest, good food, suitable environment and medical care.

As soon as the existence of tuberculosis is recognized, the patient must be informed of that fact, as that is the only way to keep him from being a menace to himself and society. The tubercle bacillus has no "days off"; so, never permit patient to interrupt treatment on any excuse; just as the disease may exist for

a long period in a dormant state—unsuspected, and giving rise to no symptoms—just so does it take a long time—months or years—to accomplish a "cure", a "recovery" or an "arrest" of the disease.

In pulmonary tuberculosis, we prescribe a regulated mode of life. In fighting its mortal enemy, the body has several tasks: (1) to make antibodies against the tubercle bacillus; (2) to erect fortifications in the shape of encapsulations.

Climate. Great climatic changes are risky; slight climatic changes with short distances to travel, if an invalid wishes to return to his home after improvement or restoration to health, produce better permanent results. The fact cannot be too strongly emphasized that of all the factors that make for improvement in tuberculosis climate is the least important. Living in a favorable atmosphere of pure air is absolutely essential, but no climate can atone for insufficient food, nor for the necessity of working when one should be resting, and least of all make up for the de-vitalizing effect of home-sickness, or of excessive worry. The benefit to be derived from residing at a high altitude is not proved. Madrid and Mexico City are built in high altitudes, but it is not claimed that tuberculosis is rare in either place. Tuberculosis is frequent in the mountains of the Hautes-Vosges, and of the Tyrol, and it is common knowledge that at Leux and at Chand-de-Fond, in Switzerland, tuberculosis is prevalent despite the high altitudes of these stations.

In his aboriginal state, man was able to live in the open like the lower animals, and hold his own against all elemental disturbances in primitive types of shelter. He needs to a certain extent to return to the aboriginal outdoor life.

Open air treatment. The open air treatment must be carried out in the shade—not in direct sunlight. Experience has shown that direct sunlight, even in winter, is prejudicial to patients who are not moving about. The patient should see the sunlight, but should not let the sun see him. Protect head and trunk from sun's rays. Every hour possible

should be spent outdoors, night and day, either at rest, sitting or reclining, or taking light exercise when prescribed.

Rest. With complete physical rest, as nearly as attainable, tuberculosis, unless very active, takes care of itself extraordinarily well, but we must bear in mind that the lung is an organ which never rests but expands and contracts at least 12,000 times daily. This constant movement of a tuberculous lung is one of the chief mechanical factors responsible for the chronicity and progressiveness as well as spread of the disease. Tuberculous patients who fail to repose develop the maximum of all possible accidents resulting from tuberculosis, while in those who rest these complications are reduced to a minimum.

Exercise. If there is no sputum and the diseased area has been walled-off, deep breathing may be permitted. The expiratory phase of breathing in tuberculosis is longer than the inspiratory. The best respiratory method consists of breathing in slowly and not too deeply, prolonging the inspiratory phase, and then expelling the air again without effort. It is considered doubtful today whether deep-breathing, as formerly advised, is beneficial to the diseased lungs; it has been found that oxygen favors growth of the bacilli; violent inspirations, which are favored in some respiratory exercises, may cause aspiration of the sputum into healthy parts of the lung and set up a chain of vicious symptoms and secondary pneumonia. When appropriate; the best form of exercise is walking; it is sufficient from the physiologic standpoint, for it brings into action especially the lower extremities, which do not, like the arms, exert a direct and often harmful effect upon the chest, while also requiring activity on the part of the respiratory system. Exercises taken at rest, preferably in bed, are a real benefit, as when a patient is confined to bed over a long period he is liable to lose strength. Passive exercises should be taken half an hour after morning meal and just before bedtime; have patient lie flat on his back and remove the pillows.

Dietetic treatment. There are innumerable diet lists for tuberculosis and, as in most in-

stances, the multiplicity proves the inefficiency of any one system. The diet should be selected for each of the 3 stages of the disease: First stage—fats, cream, milk, cheese, red and dark meats, eggs, cereals, malt extracts, whole wheat bread or biscuits. Avoid fermentable foods, hot bread, starches and pastries. Second stage—restrict the foregoing foods requiring active digestion to period when the patient has least fever. Third stage—restrict food to articles yielding most nutrition and taxing digestion least.

The method of preparation of the various foods exercises a potent influence upon their utility. The chop quickly broiled, so that it retains its juices and is turgid, is more nutritive than the shrivelled and dried, slowly fried or broiled chop from the same cut of the lamb. Dainty service is very important; the glass of milk placed beside the sputum cup is not an unusual sight, neither is it appetizing or necessary. Since the digestive juices are influenced by the absence of fever, it is advisable to administer foods requiring the greatest digestive power at that time of day when the fever is least active. It is not what we eat but what we digest and assimilate that determines the sufficiency of any dietetic procedure. Incidentally, it has been remarked that the ordinary "beef tea" has starved more people than were killed in the Napoleonic wars. The stomach and intestines of patients who lie still all day, if kept ever full, become enfeebled in their action, and dilatation readily occurs. If digestion is not disturbed, the patient should be placed on ordinary fare. When a patient is placed in bed in a sanatorium, with his mind free from the usual domestic problems, it is surprising how much he can eat and how well he can digest his food; when at home he probably exercised beyond his strength, or was too tired to eat regularly, and probably did not have the proper food. In a case of this sort, give patient what and as much as he wants. After a time he is "filled up". He has made up his deficit, and then you must be alive to the danger of surfeit. Some patients will have enjoyed the opportunity to rest, and have had an abundance of good food to

tempt their appetites. They have no true deficit to make up. To overfeed such patients would be an error.

When you encounter a patient who does not tolerate, or rather will not eat the ordinary articles of food, you must contrive some regimen to meet the problem, and your menu need not be in harmony with the theoretic indications of our laboratory experts. Tuberculous patients who are not eating at all must be made to take food. A beginning must be made with something they can be induced to accept—whatever it may happen to be. Gradually the digestive functions pick up, and the best foods can then be selected; but at the start, the best foods consist of anything that the patient will take and digest.

Clothing. Clothing must be light, warm and loose. Chilled feet are as harmful as wet feet. Attendants forget that there are hot water bottles available for use of patients, and negligently permit patient's body to expend heat and vitality warming cold bed clothing.

Bath. Patient's body should be sponged every night, in a warm room, with warm water, followed by friction with a rough towel.

Hemoptysis. The cavities in a lung, due to caseation, may vary in size from a pea to an orange or larger, and their direction is usually from the apex to the base, being divided by loops of torn or sclerotic tissue and partly filled with serocaseous or stringy mucus. In the walls of the cavity may be found small aneurysms of the pulmonary artery, resulting from infiltration with tubercle bacilli, which destroy their coats layer by layer from without inward, leaving only the intima which the blood pressure develops into a number of aneurysmal sacs. Sudden changes in temperature of the body, or exposure of patient to excessive cold, increases the volume of blood passed by the heart into circulation, and due to this increase the small arteries and capillaries of the diseased portion of the lung, and particularly the aneurysmal sacs, are likely to rupture. The blood vessels of the lung are not supplied with vasomotor nerves and an increase in the amount of blood passing through the lungs will be ac-

companied by an increase of blood pressure in the arteries.

When confronted with this emergency, take patient's temperature but refrain from auscultation; it yields no information; it disturbs the patient who is usually requested to breathe deeply, which incites coughing. Advise patient against talking and keep him cool and quiet. Talk reassuringly, in low tones, and give him a few teaspoonfuls of cold water to drink. Give morphin sulphate gr. $\frac{1}{4}$, and apply heat to extremities to allay his anxieties, and quiet your own fears.

The few really valuable adjuncts in the treatment of tuberculosis other than rest, good food, fresh pure air, and medical supervision are: (1) pneumothorax; (2) heliotherapy; (3) thoracoplasty.

Artificial pneumothorax. There exists a space between the lung and the chest wall called the pleural cavity. Air is introduced into this space on the affected side, thus compressing the lung, pushing it from the chest wall and toward the middle of the chest; thereby limiting its movements, lessening its expansion and contractions, enabling the diseased parts and walls of cavities to be brought together so that they have a chance to heal by the formation of scar tissue. In addition, compression of the lung empties it of its contents—pus, cheesy material, infected mucus and inflammatory material laden with other infecting organisms, as the squeezing of dirty water from a sponge, thus preventing their absorption by the general circulation. In a carefully selected case, where a successful pneumothorax can be established, the time required for treatment varies from a few months to several years.

Heliotherapy. Most of our people are creatures of an indoor world, working and playing indoors, behind ordinary glass that screens out the ultraviolet rays of sunshine just as surely as window shades screen out the visible rays of the sun's light. And even in our cities the smoke with which we cloud the air robs the sunshine of its beneficial rays. It is not practicable indoors to utilize intensities of illumination from an artificial source comparable with those of midday mid-

summer sunlight outdoors—7000 to 9500 foot-candles. For this reason, an exact reproduction of the spectrum of sunlight by an artificial illuminant is impracticable, as long as we seek the same degree of effectiveness from low intensities of artificial sunlight indoors as from the very high intensities of midsummer outdoors.

Drug therapy. No drug has even been found that has any material effect in impairing the activity of the tubercle bacillus in the lungs, but numerous drugs are known which have had an injurious effect upon the patient. The following remedies are useful as they exert an influence upon general nutrition, thus increasing the physiologic resistance to invasion: creosote, cod-liver oil, arsenic (Fowler's solution), mineral salts.

On all sides, investigations are being made for the long sought specific but, due to the many premature "sure shot" discoveries which have been thrown into the discard, we are cultivating an attitude wherein is demonstrated the triumph of hope over experience. The tuberculosis cell is not a normal cell but a new, complex, living entity, not linked up with the body by any blood vessels, and it is isolated in proportion to its caseation and calcification. It receives its substance by osmosis and saturates adjoining tissues with its toxic products by same method. Hence, antiseptics—whether introduced into blood stream by intravenous or subcutaneous injection, or by inhalation—are decomposed or fixed in the tissues before reaching the lesion. It is hardly possible to destroy the bacteria *in vivo* with a chemical agent, without destroying the vitality of cellular tissues. Therefore, the biologic has replaced to some extent the drug or chemical therapy.

Tuberculin. In spite of its many failures, adverse criticism, and exploitation bordering on quackery, the use of tuberculin has not passed into oblivion. It is prepared in many ways and of different potencies, though usually consisting of the following: A pure culture of *Bacillus tuberculosis* is grown for from 4-6 weeks in 5% glycerin bouillon.

This is filtered and the filtrate evaporated to one-tenth of its volume.

Tuberculin reaction. When tubercle bacilli gain access to the body and develop toxins, which are absorbed into the blood before any lesion can be detected in the lung, or tubercle bacilli in the sputum, and with such a patient who presents clinically suspicious symptoms of tuberculosis, some writers advise the injection of 5 mgm. tuberculin, as a positive reaction in 24 hours would indicate the presence of a tuberculous lesion somewhere in the body. Conversely, a negative reaction would demonstrate freedom from that disease through immunity factors in the blood serum. (In the living body there is no such thing as blood serum, it exists only in the blood outside of the body.) The temperature of the patient having been recorded every 4 hours for 3 days previously, an injection of .001 gm. original tuberculin in 5% solution of carbolic acid is given deeply into the gluteal muscles. In positive cases the temperature rises 2° or more in 5-25 hours, and there is headache, with malaise and increased rapidity of the pulse. No effect is produced in a healthy person. Contraindications: Fever, hemoptysis, hematuria, cardiac or renal troubles, arteriosclerosis and diabetes.

Von-Pirquet's reaction. This is elicited by vaccinating the skin with a solution of tuberculin; which is followed in a tuberculous subject by inflammation of the surrounding part. In adults it has no value; 70% of all persons give a reaction. It has some value in children under 10 years of age.

Calmette's reaction. A few drops of a 1% solution, preferably that prepared for the purpose, are instilled into the conjunctival sac of 1 eye. If the patient is tuberculous, this is followed in 24 hours by a marked inflammatory reaction, which subsides in 2 days; in a healthy subject no effect is noticed. Positively contraindicated in all diseases of the eye. Knopf writes: "The subcutaneous tuberculin reaction has, with the majority of clinicians, proved of little prognostic value, and the same may be said of other tuberculin tests." No immunity treatment for tuberculosis has, as yet, been discovered.

EFFECTS OF EXERCISE ON CIRCULATION AND RESPIRATION*

BURGESS GORDON, M.D.,
Philadelphia

The interest in athletic competition is regarded as perhaps one of the remarkable phenomena in the world today. It is doubtful if a civilized community exists in which athletics are not encouraged and practiced. In earlier times physical training was undertaken primarily to provide warriors and physical beauty. Today there is not the tendency toward the merely spectacular which influenced Rome; nor is there the chivalric ideal of the middle ages; nor still less the stern requirements of the savage to destroy a neighboring tribe. There is an actual desire to excel not only individually but as a unit of a superior team. The attendance at games is sufficient proof that a vast majority of individuals, although perhaps nonathletic, approve of exercise.

It appears that morale, intelligence, health and physical development generally have received benefit from athletic training and competition. As in all movements, however, periodic waves of caution and criticism have been noted. The sudden death of a prominent athlete or of a mature, apparently normal, individual playing leisurely at golf, the discovery of an enlarged heart, or of kidney, vascular or lung disease, have raised a number of pertinent questions. It appears that a survey of the evidence both for and against exercise is of timely interest, especially the consideration of popular impressions and fallacies.

The condition of so-called "athletic heart" has been discussed repeatedly but there is no apparent agreement as to specific change or etiology. It is difficult in many instances to define this condition or to prove that the heart was not pathologic before the commencement of exercise. In the majority of instances the picture is one of valvular heart

disease with hypertrophy, or merely so-called "nervous heart".

In an experimental study of rabbits with myocarditis and hypertrophy produced by injection of spartein sulphate, at the Peter Bent Brigham Hospital, in Boston, it was found by roentgenogram that contraction occurred during exercise. This phenomenon was noted also in long distance runners and in animals following prolonged effort.

The American Marathon race which takes place annually in Boston offered another opportunity to study the immediate effect of effort on heart size. In the race of 1923 a number of the most experienced long distance runners in the United States and Canada competed. It was an unusual opportunity to study not only the effect of a single, strenuous, prolonged effort but also the effect of prolonged, vigorous training on heart size. Through coöperation of the Boston Athletic Association the necessary Roentgen-ray apparatus was installed in the club rooms near the finish line. It was possible by assisting the runners to the Roentgen-ray apparatus, and supporting them during examination, to take roentgenograms within 2-3 minutes after the runner completed his race. Successive films were made after the competitors had rested for 1 or 2 hours. In estimating the change in heart size, measurements of the transverse diameter of the hearts obtained either before or several hours or days after the race were compared with those obtained at the finish. To prevent error in calculation, due consideration was given to position of the diaphragm, the transverse diameter of the chest and in those instances where there were differences of position, or distortion, the films were discarded. It was found that immediately after the race all the hearts were small. This indicates that a strenuous, prolonged effort does not cause acute dilatation of the heart. Successive roentgenograms taken during the course of 1 day showed merely a gradual return to normal. The hearts were also studied for evidence of hypertrophy, by dividing the transverse diameter of the heart by the transverse diameter of the chest. According to this so-called cardio-thoracic ratio there

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was no enlargement present, the largest hearts being definitely within normal limits.

During the past 6 years a group of these runners who had been competing frequently in long distance races and training for several months each year were examined by Roentgen rays to determine any permanent change in the heart size. In this study no enlargement of the heart has been noted, which means, so far as it is possible to judge by using the present method of study, that many years of long distance running did not produce cardiac hypertrophy.

In an investigation of transcontinental foot runners who ran 3434 miles in 84 consecutive days, Baker, Farrell and others observed by roentgenography that the transverse diameters of the hearts at the finish of the race were within normal limits. The lung markings in the majority of instances were as clear as would be expected in normal city dwellers. There was no apparent change in the vital capacity of the lungs. The blood pressure varied between systolic 110-145, diastolic 65-85 and a slight reduction was noted during and immediately following effort; the heart rates with few exceptions were below 60. Tortuosity of vessels of the forehead and sclerosis in the extremities were not uncommon.

In considering the available data for analysis, these observations, except for the occurrence of hypertrophy, are in agreement with the report of Buytendijk who noted enlarged hearts in certain athletes participating in the Olympic games in Amsterdam. The question may be raised, and quite fairly so, that simple hypertrophy may occur without recognition by means of roentgenography. This can neither be proved nor disproved. It is a fact, however, that this form of hypertrophy is rarely noted at postmortem study and the likelihood of occurrence without some element of dilatation is highly improbable. The final proof will necessarily fall on the anatomic examination. In such a study, however, the interpretations should be guarded until some means for excluding the influences of arteriosclerosis and hypertension have been obtained. The findings of Wearn, in an

investigation of Thebesian vessels, suggest that diminution in the number and distribution of the capillaries occurs in certain hearts. This may explain sudden catastrophe when unusual demands are placed on the heart. However heart size in athletes may be regarded, it is significant perhaps that dilatation was not recognized in animals following prolonged exertion or in man after long distance running.

The appraisal of an individual's capacity for work is difficult to establish. Obviously underlying pulmonary infection, heart disease and certain disturbances in metabolism should exclude a program of sudden or prolonged physical effort. As for example, in the tall, nervous, moderately nourished individual the question of hyperthyroidism should be considered in determining the form and extent of exercise. It would appear that undue excitement and prolonged effort in this state would be distinctly harmful. In the well developed "angina type" of individual of middle age, athletic competition should be undertaken cautiously. It would appear that changes in blood-vessels and eye-grounds should be regarded as danger signs. These may reflect alterations in the capillary bed in the heart and kidneys. There seems to be a consensus of opinion that moderate exercise is distinctly advantageous for immediate health and longevity. It should be graduated intelligently, however, and when certain manifestations occur the possibility of hidden pathology should be considered. It appears that a sharp line of distinction should be drawn between the effects of exercise in disease, nervous and nutritional states and the favorable effects which may be accomplished in the normal individual. Obviously, breathlessness, palpitation, and precordial pain should be regarded seriously in those who would participate in athletic competition.

CONCLUSIONS

- (1) A series of studies on long distance runners and animals suggests that contraction rather than dilatation of the heart occurred following prolonged effort.
- (2) Hypertrophy of the heart in long dis-

tance runners, as caused by prolonged effort, could not be established.

(3) A reduction in blood pressure following effort was not uncommon. A definite change in the vital capacity of the lungs was not observed. Sclerosis and tortuosity of the peripheral vessels was noted in a few instances.

SOME OPHTHALMOLOGIC PICTURES AND THEIR SIGNIFICANCE

EDWIN B. MILLER, M.D., F.A.C.S.,
Ophthalmic Surgeon, Stetson Hospital,
Philadelphia, Pa.

Mr. President, and members of the Burlington Medical Society, I thank you for the opportunity of visiting my native state and of discussing with you some problems in which we are mutually interested. First, I shall endeavor to give you a few word pictures to show the value of ophthalmologic examinations in cases which are, strictly speaking, not in the realm of ophthalmology but which are often discovered by the use of instruments with which the ophthalmologist is familiar; the ophthalmoscope, slit-lamp, phorometer, and various types of apparatus used in taking the field of vision. Many of these patients come to us for refraction, and the disease condition present is first diagnosed by the ophthalmologist. Then, there are some who have vague symptoms due to ophthalmologic causes, who are seen first by medical men but for various reasons are not properly advised; being either referred to optometrists or allowed to drift; at least, they are not sent to the oculist.

The cases I shall report are taken from my private records, and study of them has enabled me to put my finger on conditions that were not suspected; and so I have helped the neurologist, the surgeon or the internist to make a rapid, accurate diagnosis and to institute treatment which has been of great service to the patient.

Case 1. W. B., aged 18, a draughtsman, seemed to lose interest in his work, was list-

less, could not concentrate, complained of headache and gradually diminishing vision, and his physician suspected brain tumor or encephalitis. When I saw him, he was at home in bed; a tall, thin, pale young man who looked sick, although his parents, especially his father, thought he was loafing. About 1 month previous to my visit, he had been operated on by a rhinologist for correction of a deflected nasal septum. The operation was followed by 2 rather sharp postoperative hemorrhages; the first, 4 days after the operation; the second, 6 days later; both were easily stopped, he had no further trouble, and went back to his work. About 2 weeks later he developed the symptoms described above.

Examination of his eyes, externally and internally, was negative, but on taking his visual fields by the rough-hand method, I discovered that he had bitemporal hemianopsia, with a tendency to superior altitudinal hemianopsia, so I made a diagnosis of clot or exudate in front of and a little below the optic commissure, probably resulting from the nasal operation. We gave him pilocarpin hydrochlorate gr. 1/20 followed by a hot dry pack daily; tr. iodin 15 drops 3 times a day; rest in bed. He stayed in the hospital for 2 weeks and being then free from all symptoms was discharged. Two weeks later the fields showed no signs of cutting, the hemianopsia having disappeared, and he is perfectly well.

Case 2. C. J., aged 45, a printer by trade, had always been well until early summer, when he became ill and his physician, suspecting that he was suffering from a nervous breakdown, placed him in a hospital for observation. All of the usual laboratory tests were negative. He was nervous, had some disturbance of taste, smell and speech and occasional lapses of memory during his stay in the hospital. While there he improved, and was then taken to the shore for a month, when all symptoms subsided. He went to work for a few days, but one evening while cutting up and laughing his vision suddenly became blurred on the left side. The next day he came to see me. Central vision was 20/20 in each eye. Rough-hand field showed

the presence of left homonymous hemianopsia. I noticed a bony tumor on the right temple just above his ear, 2 cm. in diameter and raised about 1 cm. He told me he had always had this lump, but his mother says it was not present at birth. X-rays revealed a large bony mass, 8x10 cm. diameter, occupying the right temporal fossa. We then referred him to Dr. Charles H. Frazier, who removed the bony lesion which was pressing in on the brain. His taste, smell and speech are now normal, his hemianopsia is steadily decreasing, and when I saw him last he said he was going to work.

Case 3. G. C. P., aged 56, vice-president of a large business concern, has been a patient of mine for 20 years; a large, well-nourished man, very active. He came to me for a change of glasses, and so far as he knew was in good health. Vision was 20/40 without glasses, 20/20 with; external examination negative; ophthalmoscopic examination of the right eye was negative, but in the left, just below the macula, there were several pin-head sized hemorrhages. I referred him back to his physician for physical examination, and he discovered that he had cardiorenal disease which had not been suspected by either doctor or patient. He went on a business trip, against the advice of his physician, and came to see me 1 month later with his left vitreous filled with blood and his vision down to counting fingers in that eye. For the past year he had been trying to get well. Vision for both eyes is 20/20 with glasses. This man has since died of cardiorenal disease, having lived about 3 years from the time the small hemorrhages were discovered.

These cases will suffice to illustrate the point I am trying to make: that every case presenting obscure symptoms should have a complete eye examination as a routine measure. We have seen many obstetric cases with a visual disturbance whose serious condition was not suspected until a careful study of the interior of the eye was made. In a number we have advised emptying the uterus as a means of protecting vision and saving life. We have studied cases of cata-

ract, of affections of the retina and optic nerve, and have discovered many diabetic patients who had visual disturbance, in whom the diabetes was not suspected until after an eye examination.

While the foregoing cases are of interest to all of us, they are not so common as the ones that come under the head of ocular muscle anomalies. These are the cases that you all see and properly diagnose, but for some reason or other many physicians let it go at that and do not supplement their diagnosis by some advice to the patient; or let the case drift along, and even tell the parents the child will outgrow it. The person with a squinting eye is greatly handicapped from an economic and social standpoint, and in this day, when all large industrial concerns are making ocular examinations before employing help, it is increasingly so; for nearly all these patients have monocular vision, and the sight in the squinting eye is greatly reduced. Therefore, the employer considers it a hazard to give employment to people so affected.

A patient of mine, in early middle life, had been employed as a rigger for 20 years, when he lost his position through failure of the firm. He could not secure another job because his squinting eye was amblyopic, so he was compelled to take a job as a watchman at about half his usual wages.

We all see these patients in early childhood, and that is the time to remedy the defect; by proper glasses, by operative measures, supplemented by muscle and visual exercise. All children with squinting eyes should have glasses before they are 4 years old, and if this does not suffice to correct the trouble they should be operated on before they are 6 years old, as after that time the fusion faculty is fully developed and it is often then impossible to secure binocular single vision.

Finally, we come to the subject of heterophoria or latent squint. When the eyes have a tendency to turn in, we designate it as esophoria; when they turn out, exophoria; up or down hyperphoria or hypophoria. These children do not complain until they are well

along in school life and use their eyes for close work, or later in life when they go out into the business world; then these defects produce a train of nervous symptoms the number of which is surprising. They are entirely beyond the ken of the refracting optician and only by careful muscle studies and measurement can they be detected, but when detected they can be treated by muscle exercise, by the application of prisms, or in some cases of high degree only by operation. I could show you many cases where corrective measures made an almost new man or woman. I call to mind one which was sent to me by Dr. R. I. Downs, of Riverside, N. J., possibly 10 years ago, when operation was necessary to restore the ocular balance. A year later when I saw this patient on the street, I did not recognize her because her physical condition had been so much improved.

THE PROBLEM OF MEDICAL CHARITY*

LINN EMERSON, M.D., F.A.C.S.,
Orange, N. J.

During the past 3 or 4 years, lay periodicals and magazines have been flooded with articles, many of them written by laymen, criticizing hospital costs and the medical profession. Under such titles as "The High Cost of Illness", "Excessive Hospital Charges", "What Our Baby Cost Us", etc., the complaints of the unfortunate middle class individual have been set forth, and in most instances the hospital and the doctor have been criticized.

Individually the doctor is not deserving of this censure, but collectively our profession is considerably at fault. Many doctors seem to take pride in their absolute lack of business ability. They stress the fact that the art and science of medicine is a profession and not a business, and look with distrust at any form of organization or coöperation. With the exception of farmers, organization of

the medical profession is the most inefficient of any kind in the country. Most carpenters, plumbers and bricklayers are members of a union, yet only about 2/3 the number of practicing physicians are members of their county society and but 10-15% of those who are members participate in its activities. As a result, the physician of average ability, the general practitioner or family physician, takes little interest in the efforts of various medical organizations to improve conditions.

The character of our profession makes many of these conditions irremediable. A lawyer who aspires to a political career may go to the legislature, leaving a large part of the routine work of his practice to one or more juniors. His name is constantly before the public, he has numerous opportunities for "honest graft", and if sharp and clever returns home to a greatly augmented practice. On the contrary, the public demands of a doctor *personal service* and declines to be served by his assistant. Frequent absences, even of short duration, demoralize his practice. Therefore, few physicians of outstanding reputation and ability feel they can afford the luxury of political ambition; the doctor who does go in for politics is often one who has failed to attain professional success, and his lack of appreciation of the ideals of his profession has led to the oft repeated phrase—"From the political doctor, good Lord deliver us!" Because of our meager representation in various legislative bodies, meager both in quantity and quality, it is not surprising that laws advocated by us, even when altruistic, receive but scant consideration. As an example of the regard with which the politician holds the physician, I suggest a comparison of the salary of the City Physician and the City Counsel, and the relative value of service rendered by each. When a law is introduced which is favored by the legislative committee of our state medical society, whether it be for the good of our profession or for the public at large, it is difficult to get more than a corporal's guard of doctors to attend a hearing in Trenton. We have recently been taught what a powerful force the "lobby" can be in

* (Read before the Orange Mountain Medical Society, June 20, 1930.)

securing desired legislation. When the chiropractic and osteopathic bills came up for a hearing last winter their advocates outnumbered us 5 to 1, and spent money freely for legal advice and assistance. As an example of what an organized minority can put over, witness the Eighteenth Amendment.

Hospitals were originally started by doctors that they might have a place to take sick people, the better to care for them. Nowadays, the doctor has little to say in regard to the conduct or management of most hospitals. The board of managers is made up almost entirely of laymen, with but 2 or 3 members from the medical staff. The hospital director or superintendent is nearly always a layman. As a natural result, advice from the doctor is often not given due consideration. In my opinion the high cost of illness, of which so much criticism is just now being heard, is very largely due to maladministration of medical charity.

The medical profession has so long prided itself on its idealism and altruism, that the ultimate result is exploitation of the doctor by that "old man of the sea" *medical charity*. The butcher, the baker and the grocer do not furnish the poor with food gratis. Why, then, should the medical profession bear the burden of medical charity? As a matter of fact, we get more credit than we deserve for being a noble and altruistic profession. To be sure, we do all this medical charity, hospital and clinic work without pay, but the doctor and his family must live, and his fees must be commensurate with the standard of living which he sets for himself. Even though I fit 10 pairs of glasses at a free clinic without charge, I can not go back to my office and charge rich patients \$25 to \$50 for the same service, for no matter how wealthy they may be they will resist excessive overcharge. So, I charge 2 or 3 wealthy patients as much as I think they will pay without protest, and charge 6 or 8 middle class fellows twice as much as they can afford to pay. The obstetrician, the pediatrician, the surgeon, and the family physician do the same, and murmurs against the high cost of illness are the result.

More than 20 years ago one of my patients

objected because I charged him \$5 for examining his eyes. I replied that if I could get \$1 per visit for every patient treated I would have a respectable income. As he doubted me, I kept count for the month of March 1906, and found that the number treated gratis was more than 900.

My income during the period between 25 to 35 years of age was about that of an average grocery clerk, and between 35 and 45 more than half my time was given to hospital and dispensary work. To insure enough money to bring up and educate my 4 children, secure a moderate life insurance, buy a home and keep me free from want in my old age, ought I now be permitted to charge from \$200 to \$500 for a cataract or a mastoid operation? From my point of view "yes". From the point of view of the moderately well-to-do patient "no". Why this difference in our points of view? Because of the maladministration of medical charity.

From a paper of Dr. S. H. Large, describing recently visited foreign clinics, I quote as follows: "One thing that impressed us was the attitude of the surgeon to the clinic patients. Everywhere they were treated with the utmost kindness, gentleness and consideration. The clinics appeared to have a larger attendance and the class of patients was very different from our previous visits; they appeared better dressed and better nourished than formerly. To a visitor, it seemed as though the clinics were being imposed upon, judging from the appearance of the patients and from the large number arriving in automobiles, but the surgeon never seemed to question whether he or she was worthy of his time and skill."

This may be equally well said of most of the clinics in this country. At least one-half the patients in most of our clinics can afford to pay—not the fees which the physicians who treat them charge in their offices, but reasonable, moderate fees. There is a law in some states making it a misdemeanor for one who can afford to pay to seek treatment at a free clinic. This law is in most instances a dead letter for 2 reasons: first, because the one most concerned in its enforce-

ment, the doctor, has nothing to say in the matter; and secondly, because the persons in charge of its enforcement, and the various social service workers and investigators, knowing that the patients cannot afford to pay the office fees charged by the specialists in charge of the clinic, overlook the fact that there are other doctors equally or nearly as capable who need the money and would gladly treat such patients for moderate fees.

As a result, the specialist in the clinic falls into this routine: He treats a large number of patients gratis, who could afford to pay a moderate fee; and builds up a small select office practice of patients whom he charges large fees. Perhaps $\frac{1}{2}$ of these patients can afford to pay the amount charged, but the other half represents those who complain of the high cost of illness. Many of them after 1 visit to the high-priced specialist pocket their pride and go to the free clinic, thus completing the vicious circle.

About $\frac{1}{3}$ of clinic patients are made up of the foreign born and their progeny, whose attitude of mind is "why pay for anything you can get for nothing". Many of this class are canny and frugal, and are worth 5-10 times as much in money or property as the poor junior medical man who performs most of the clinic routine. Each institution strives for large clinics, and the worthiness of the patient is a matter of secondary consideration. Thus, it can be readily seen that the burden of medical charity is borne, not as it should be by the entire community, but by the hospital and the medical profession. The doctor, in order to live, must charge some of his patients more than they can afford to pay, and the general public is firmly convinced that hospital charges are unreasonably high. The physician and, to a less degree, the hospital, fail to collect all accounts due, and this loss is but so much more medical charity perforce to be paid by those who *do* pay their bills.

Hospital costs are mostly met by income from endowments (if the institution is fortunate), income from pay patients, and money raised by voluntary contributions. These ways of raising money are faulty. The

pay patients are often compelled to pay more than they can afford, and the time, effort and money spent in the hospital drive is excessive; and the money comes from the comparatively few who are liberal and charitable, while no matter how well able they are to pay the niggardly and stingy contribute but little. Is there any remedy? Not until we have a new deal and a reëducation of all concerned, which means everybody.

There are many other reasons for the high cost of illness. Hospital boards and architects spend too much on ornate decorations, solariums, rest rooms and \$20 to \$40 per day suites, with private baths, saying—"these are what bring in incomes". There is too much *salesmanship* in keeping the higher priced rooms filled. There are too few low priced semiprivate and private rooms, particularly the latter. There is too big a jump in prices between the ward and the lowest priced private room. With proper floor planning, small rooms and group nursing, cheaper private rooms can be supplied. Average patients, even though in moderate circumstances, shrink from sharing rooms with others. They are spoiled by our modern social and economic conditions; 90% of them live beyond their means and no provision is made for illness, which is always "unexpected". When illness comes, with characteristic prodigality, they demand the best, and after it is all over complain of its cost.

I recently saw a child 5 years of age with a subperiosteal mastoid abscess. Appreciating the moderate financial circumstances of the family, I tried to arrange the operation on an economic basis, but the mother insisted her child must have the best of everything, and demanded a high priced room and 2 special nurses. Two days after the operation, the father, when visiting his child, said rather dolefully to one of the nurses—"I don't see how you nurses and the hospital are ever going to get paid, as we simply haven't any money." He no doubt had equal forebodings as to payment of the doctors who were caring for the patient.

When the private room patient objects to his hospital and doctor's bill, he overlooks

the fact that he is paying the hospital *in part* for the care of its ward cases and the doctor *in full* for the care of such cases. If a doctor treats any given number of patients per day and $\frac{1}{2}$ do not pay, the remaining half *must* pay for the ones who *do not* pay.

Dr. Franklin H. Martin, Director of the American College of Surgeons, in a Symposium on "Medical and Surgical Economics", summarizes as follows:

(1) The average income of practitioners of scientific medicine is low compared to the income of members of the other learned professions, and is not a factor in considering what has been termed the high cost of medical care.

(2) Legitimate therapy, as prescribed by scientific legalized practitioners, is of reasonable cost. Self-prescribing often leads to unreasonable expense. Excessive expense is often incurred through the use of patent medicines and so-called physical therapy as applied by irregular practitioners.

(3) Even in face of the fact that we are in an age of extravagance and reckless expenditures, the average cost of routine hospital care is not, in my opinion, exorbitant.

(4) Laboratory charges, when limited to the generally accepted routine tests, and to special tests actually prescribed by the legalized practitioners of regular medicine, are reasonable in comparison with scientific laboratory work in the commercial world.

(5) The fees of professionally trained nurses are far below the salaries of skilled workmen, and even below the salaries of the average unskilled, uneducated workmen. Nurses are not overpaid, in comparison with educated office employees. They certainly cannot be accused of contributing to the excessive cost of legitimate medical care. Especially, we must not overlook the fact that approximately $\frac{1}{3}$ of a nurse's time is lost in the intervals between cases.

(6) The public demands not only legitimate medical care of the best quality, but when the rainy day of slight or serious illness comes many are reckless in their demands for extravagant rooms, unnecessary nursing, and unwarranted consultations. These are often paid for in an inverse ratio to their importance. Sickness is an unlooked for emergency, and its cost, at any price, is looked upon as an embarrassing burden.

During the past few years several hundred articles have appeared in medical and lay magazines, by doctors, patients, hospital directors, laymen, sociologists, economists, and welfare workers from various organizations and foundations. While much has been accomplished, many suggestions have been carried out and plans are being formulated for the further betterment of conditions, it is surprising that no one seems to have appreciated the crux of the situation, or, if so, has had the temerity to boldly state that the greatest single reason for the high cost of illness is

the vicarious manner in which the burden of medical charity is borne.

A recent hospital survey of the state of New Jersey shows that last year 31% of the patients were private and semiprivate, and 69% ward cases. This does not take into account the thousands treated in the clinics and outpatient departments. What other business or profession could serve more than half its clients or customers at a loss, without profiteering outrageously on the ones who paid?

Care of the sick poor is a municipal and state duty, the same as water supply, street lighting, roads, sewage disposal, education, and the departments of fire, health and police. In tuberculosis sanatoriums, state hospitals for the insane, contagious disease hospitals, alms houses, etc., all medical as well as other care is paid for by taxation. Why should other illness be an exception, and more than $\frac{1}{4}$ the burden be borne by the medical profession alone?

All doctors, not only in municipal but in open and private hospitals in which charity is done either in their wards or outpatient departments, should be paid a moderate salary regulated according to the character of work done and time employed.

For patients in semiprivate and the lower priced private rooms there should be definite charges for visits and surgical procedures. In the higher priced rooms only should fees be permitted which the doctor feels his reputation and ability, and the patient's circumstances, warrant. This is not a plea for an increase in the income of the medical profession, but an honest demand for services rendered, and will enable those with middle class practices to treat patients for what they can afford to pay, instead of driving them to the quack or to the free clinic. There is no danger of any doctor getting rich under this régime. The exigencies of medical practice are such that personal service is required, and lack of time and physical stamina necessarily limit output and income. Practically no member of our profession ever became wealthy from medical practice alone. The Mayos, for instance, owe their success not so

much to their unusual skill as to their superlative business organization. The few physicians and surgeons with large incomes owe them almost entirely to business acumen and judgment in securing a wealthy clientele.

About 25 years ago I read a paper before this society in which I predicted gradual socialization of the medical profession, and in the discussion which followed was criticized severely for my advanced ideas. Our present health, school, industrial, insurance, dental, maternal, child welfare, and other curative and preventive medical services show that my prediction was not very wide of the mark.

Nietzsche accords to Pilate, the Roman Viceroy, the highest honor: "The noble scorn of a Roman, before whom the word 'truth' was shamelessly mishandled, enriched the New Testament with the only saying in it that has any value—what is truth?" Anatole France considered it the profoundest question ever asked; what other question does not depend upon it? This question is no doubt responsible for the conservative attitude of our profession toward innovation of any sort.

The late Dr. George M. Gould wrote a paper on "The Reception of Medical Discoveries", citing the opposition raised within our ranks by the epoch-making discoveries of Harvey, Jenner, Pasteur, Lord Lister, Sir James Y. Simpson, McDowell, J. Marion Sims, S. Weir Mitchell and a host of others. This traditional conservatism of our profession leads me to fear that my audience tonight will not receive my suggestions with any particular degree of enthusiasm, and I am sure that if the commissioners of our various municipalities were asked to make an appropriation for

the hospitals of the Oranges sufficient for the actual cost of free hospital treatment, and to pay doctors moderate compensation for work done in wards and outpatient departments, the request would be received with derision and the reply would be that the sacred tax rate would be raised at least 10 points by such a rash and unbusinesslike procedure. Nevertheless, such action would put the burden of medical charity where it rightfully belongs, and help materially to reduce the high cost of illness to our great middle class.

Since such relief can be little hoped for at present, a step in the right direction seems to be *pay clinics*. Cornell Clinic pays Heads of Departments \$1500 per year. First-Assistants \$7 per session of 2½ hours. Second-Assistants \$5 per session of 2½ hours; provisional assistants unpaid. For the year ending June 30, 1927, its total receipts were \$305,000, and medical salaries \$98,000. Income per patient was \$2.41; cost per patient \$2.29.

The high cost of organization and overhead precludes a large number of such clinics. I, therefore, suggest establishment of pay clinics by *individuals* setting aside 1 hour per day for such purposes. Every specialist with a well conducted office has the facilities for such a clinic, can earn as much as he would get in a pay clinic, and can contribute the personal touch which is lacking in an institutional clinic. Technical work can be sent out to laboratories that will do the work at a nominal cost.

Feeling that there is a real need for such clinics, I purpose in the near future to establish a pay eye clinic for people in moderate circumstances.

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PUBLICATION COMMITTEE

HENRY C. BARKHORN, M.D., Chairman, 45 Johnson Avenue, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

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POSTCONVENTION THOUGHTS

The recent Annual Meeting of the state medical society was highly successful in many respects, and only to a very limited degree is there anything about which to complain. The facility with which the House of Delegates dispatched business despite the handicap of proceeding under an entirely new Constitution and By-Laws is deserving of special mention, and the presiding officer and committee chairmen deserve considerable credit for the patience and skill displayed under sometimes trying circumstances. It could not be expected that the new machinery would operate with absolute smoothness, but there was less friction than might have been anticipated. The failure to hold a scheduled Saturday morning session, due to inability to raise a quorum, was unfortunate because it necessitated passing on much work to the Board of Trustees that should have been performed by the Delegates. It does look as if it would be wise to abandon efforts to hold a final session on Saturday, and to have an extra meeting of the House of Delegates late Friday afternoon to complete the business transactions of the convention.

General attendance was also disappointing this year. Through each of the past 6 years there has been a steady increase in registration of attendance, until it had exceeded 1000, but this year there was a marked falling off

—the total being something more than 800, and the number of member physicians but 388 as compared to 500 at the 1929 meeting. Various reasons may be given in explanation of this decrease of more than 100, but we fear that one of the principal reasons is to be found in verification of the prediction that abolition of "permanent delegates" would have that effect. Whether or not that is true cannot be proved save by a careful "check and double check" of the old permanent delegate list with this year's attendance roll; at present we can only say that apparently a considerable number of the former "regulars" were this time absent.

A point much more difficult to explain is—why can we not secure a larger percentage of attendance? *Why is it that 1 county was represented by only 2 members; another by 3 only; and these counties not the most distant ones from the place of meeting?* When one considers the amount of time, thought and energy put into preparation for the annual convention, and the excellence of the program arranged; and, further, considers the fact that the convention deals with a series of problems that vitally affect the professional and business success of each and every member; an attendance of only 15% of the entire membership needs an explanation, and the attendance of so small a number from even the smallest county in the state

(measured by number of physicians) seems inexplicable. Have the majority of members so little interest in these annual meetings as scanning of the registration list seems to indicate, or, are they so well pleased with the conduct of the society and the work of its officers that they are satisfied to leave complete management of their affairs to the few who more or less regularly attend?

Apropos of the trust placed in these officers and the work performed by them, we find an editorial in the June number of the California State Society Journal which fits the New Jersey situation very well: "The day for platitudinous compliments to outgoing officers of a medical society, who may or may not have done their work well, is fortunately rapidly fading into the misty past. Today the world—and the medical profession in its little world is no exception to the rule—demands real service. That this demand is everywhere so insistently in evidence in medical organizations, bodes well for the morrow in medical practice. Great and grave as are the problems confronting medical practice and organization today, there need be little fear of the outcome, if the guiding policies be outlined and executed by representative and experienced officers and committeemen who place a high grade of service for the profession above self-seeking or personal interests." * * * *

"A survey of the political situation, in relation to senate and assembly candidates, should be instituted at once and a report made at an early meeting of each county society or its executive board. If this be done, the local situation can be clarified with far less work and worry than later on. Every member of the state society should make it his business to know who are the candidates for the assembly for the district in which he has his residence. Even the smallest county societies can be of distinct and powerful service when they use their influence to elect state senators who are kindly disposed toward proper health standards."

Attention was called to this last matter in our own House of Delegates, when it was

shown what a reliance Senator Cole, of Sussex County, has been for several years past, and what a factor Assemblyman Newcomb was last winter in safeguarding public health.

Within a few days after adjournment of the 1930 convention, the new President, Dr. George N. J. Sommer, had announced the appointment of all Standing Committees for the next fiscal year, and in the usual place in this Journal you will find a complete list of officers and committees. Under the new rules and regulations, some of the old-time committees have been dropped and some new ones provided for. Dr. Sommer has also inaugurated the plan of inviting all 3 of the Vice-Presidents to attend regularly all sessions of the Welfare Committee. For several years past the First Vice-President has been regularly included in the Tristate Medical Conference, and recent Presidents have frequently, but irregularly, invited their respective First Vice-Presidents to other important meetings or to joint visits to county societies, but President Sommer is taking a further step in advance for training the men "in line" to prepare for duties likely to fall some day upon their shoulders.

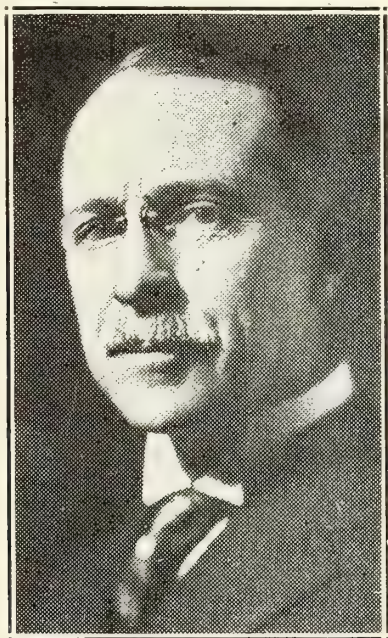
On Sunday, June 29, the newly chosen Board of Trustees met in Trenton for the purposes of organizing and transacting any business that might require attention. Dr. Andrew F. McBride was unanimously elected Chairman, and Dr. James Hunter, Jr., unanimously reelected Secretary; both events being portentous of good future results, for with a secretary that carries over from the "old régime" and a progressive-conservative for chairman, the new blood and the old ought to be made to fuse without development of any factional troubles.

The same line of reasoning gives us encouragement as regards progress of the Journal. Dr. Ill remains on the Publication Committee, and Drs. Emerson and Barkhorn will supply that new blood infusion so necessary occasionally in all organization work; Dr. Barkhorn being selected to fill the vacancy caused by the death of Dr. Bennett, and bringing to us youth, energy and demonstrated executive ability.

In Memoriam

GORDON KIMBALL DICKINSON, M.D.

In the "passing westward" of Gordon K. Dickinson, June 25, 1930, in the seventy-fifth year of his life, the Medical Society of New Jersey loses another of its distinguished Fellows and most loyal supporters. As President during the year 1914-15, and as a member of the Board of Trustees until a few days before his death, he gave of his best thought, constant interest and unlimited energy to the advancement of scientific medicine and promotion of professional and public health welfare. An unusually large percentage of the State Society Officers and



Dr. Gordon Kimball Dickinson

Trustees attended his funeral in Jersey City to pay their last tributes of respect to a departed but long to be remembered friend.

Dr. Dickinson was a direct descendant of the Pilgrim Fathers, some of his forebears having arrived in the country in 1630, at Hadley, Mass. He was born in Jersey City, on December 14, 1855, at 63 Wayne Street, where his father, William Leverett Dickinson and his mother, Cecelia Goss Dickinson had settled after coming here from Windsor, Vt.

He was educated in the schools of Jersey City, attending Public School No. 3 until 1869, when he went to Mount Washington College Institute until 1871.

After reading medicine, he went to Bellevue Medical College, from which he graduated in 1877 with the degree of Doctor of Medicine. He was an intern

then at the Jersey City Hospital, and for 2 terms attended the class of the well known Dr. J. G. Winters. During the years since he made 15 trips to Vienna and studied in all leading European countries as well as America.

Dr. Dickinson was interested in tuberculosis work for more than a quarter of a century. On March 30, 1906, he was made chairman of a committee to consider what could be done to aid victims of tuberculosis. He became a member of the State Association for Prevention of Tuberculosis when it was organized, May 1, 1906, and 2 years later was elected its president. He was a member of the committee that, April 16, 1907, selected the site on the north side of Snake Hill, Secaucus, for a state sanatorium.

This was formally organized on January 1, 1909, with him as president of the board of managers, and was the fifth hospital of its kind opened in the United States.

We observed one very touching, very pathetic, very beautiful feature of the funeral service: We were at first surprised, then very much pleased, to note the large percentage of women who, in passing the bier to look for the last time upon this friend, reached out and touched the cold hand of the departed—probably former patients who thus caressingly acknowledged services rendered them in hours of anguish when they themselves had faced death; it was a beautiful tribute of affection made of striking import by the number of times it was independently and spontaneously repeated.

In the general practice of medicine and as a surgeon, particularly in the realm of gynecology, he attained exalted rank, but in the years to come he will probably be best remembered for his friendliness to all classes of people, his charity—both professional and financial—to the suffering poor, and his wise counsel to those younger physicians who had the privilege of contact with him in hospitals and medical societies.

IMMORTALITY

W. S. MCGANN, in *The Churchman*

There is no death. The winds of yesterday
Have fled to stir the grasses elsewhere.
Nothing shall die. The rose that bloomed last May
Will wake next spring as sweet, as subtly fair.

The ripened seed that left its withered pod
But fell to earth to sleep beneath the snows;
It was not dead; nay, in the plan of God
It will revive again when summer glows.

Nothing shall die. What though the darkness falls
Across dim eyes that gaze their last on light!
Look up, oh Heart, to where the splendid halls
Of God's great palace shine beyond the night.

There is no death. The flower may droop and fade,
The ripe seed fall, the wind be hushed to sleep;
The night will pass, and, gloriously arrayed,
The Day Star burn above the eastern steep.

Collateral Reading

THE STORY OF SAN MICHELE

BY AXEL MUNTHE

(Reviewed by the Editor)

For once a book-jacket blurb has under rather than exaggeratedly described the character of a book. We noted the following announcement with some misgivings, but found every word of it true: "Dr. Munthe's autobiography proves again that truth is stranger than fiction and far more engrossing." The life story of this famous European doctor is crammed with adventure—amusing and tragic, peaceful and hair-raising. With royalty and in the slums he has lived and worked and played, and he has set all down vividly, with wit, and a shrewd and subtle valuation of the world, the flesh and the devil. This book will appeal to all men, doctors especially, and to most women."

And one of the reviews (from Good Housekeeping) used in advertising said: "Perhaps the truth about a doctor's work and ethics has never before been so frankly revealed. Certainly never before with such wisdom, such humor and irony, such realism, such raciness, and withal such art. For it is great writing."

As already stated, we found the above to be an understatement of the charm of this autobiographic novel or novel autobiography. To our readers, physicians and members of their families, we commend it with stintless praise.

There are recorded experiences that will stir memories for any physician, especially relating to his early struggles, doubts of his own ability, fears regarding the completeness of his knowledge or the accuracy of his judgment. "I was supposed to know everything, even surgery. It took me 2 years to realize that I was not fit to be a surgeon; I fear it took my patients less time. Although I was supposed to be a nerve doctor, I did everything a doctor can be asked to do, even obstetrics—and God helped mother and child. In fact it was surprising how well the great majority of my patients resisted treatment. * * * I was lucky, had almost uncanny luck with every patient I saw. I was not a *good* doctor, my studies had been too rapid, my hospital training too short, but there is not the slightest doubt that I was a *successful* doctor. What is the

secret of success? To inspire confidence. What is confidence? Where does it come from, the head or the heart? Is it visible in the eye, is it audible in the spoken word? I do not know; I only know that it cannot be acquired by book-reading nor by the bedside of our patients. It is a magic gift granted by birth-right to one man and denied to another. The doctor who possesses this gift can almost raise the dead. The doctor who does not, will have to submit to the calling-in of a colleague for consultation in even a case of measles. I soon discovered that this invaluable gift had been granted me by no merit of mine. I discovered it in the nick of time, for I was beginning to become conceited and very pleased with myself."

Munthe was a great lover of animals and his observations on Pasteur's work and the great benefits thereby conferred upon humanity caused him to write a most interesting chapter on what might be called the contribution of animals to science, and a scathing rebuke of the pretentious animal lovers who oppose vivisection for scientific study and yet practice or encourage all sorts of animal abuses in circus training and in the routine dealing with domestic pets.

Some of his personal experiences read like dime-novel thrills; a trip from Paris to Lapland for a needed vacation; participation in the fight against cholera in Naples, when more than 1000 cases a day developed; escorting a maniac to an asylum in Stockholm and having to fight for his life.

An earnest, conscientious humanitarian, his chapter on doctors and their financial earnings is entertaining, at least. He had no "business sense" and so his periods of wealth were not seldom interrupted by moments when he had no money at all. "I said it was hopeless to try to keep accounts and as to writing bills I had never done it and was not going to do it. Our profession was not a trade but an art, this trafficking in suffering was a humiliation to me. I blushed scarlet when a patient put his 20 franc piece on my table and when he put it in my hand I felt as if I wanted to hit him. Norstrom (a fellow countryman and neighbor physician) said it was nothing but sheer vanity and conceit on my part, that I should grab all the money I could lay my hands on, as all my colleagues did, even if handed me by the undertaker. I said our profession was a holy office on the same level as that of the priest if not higher, where surplus money-making should be for-

bidden by law. The doctors should be paid by the state and well paid like the judges in England. Those who did not like this arrangement should leave the profession and go on the Stock Exchange or open a shop. (Interesting in view of present day discussion of state medicine.) The doctors should walk about like sages, honored and protected by all men. They should be welcome to take what they liked from their rich patients for their poor patients and for themselves, but they should not count their visits nor write any bills. What was to the heart of the mother the value in cash of the life of her child you had saved? What was the proper fee for taking the fear of death out of a pair of terror-stricken eyes by a comforting word or a mere stroke of your hand? How many francs were you to charge for every second of the death-struggle your morphia syringe had snatched from the executioner? How long were we to dump on suffering mankind all these expensive patent medicines and drugs with modern labels but with roots sprung from medieval superstition? We well knew that our number of efficacious drugs could be counted on the ends of our fingers and were handed to us by benevolent Mother Nature at a cheap price. Why should I, who was a fashionable doctor, drive about in a smart carriage, while my colleague in the slums had to walk on foot? Why did the state spend many hundred times more money on teaching the art of killing than the art of healing? Why didn't we build more hospitals and fewer churches; you could pray to God everywhere but you could not operate in a gutter? Why did we build so many comfortable homes for professional murderers and housebreakers and so few for the homeless poor in the slums? Why shouldn't they be told that they should feed themselves? There is no man or woman who cannot even while shut up in prison earn his or her daily bread if given the choice between eating or not eating. We were constantly told that the majority of the prison population was made up from weak-minded, unintelligent, more or less irresponsible individuals. This was a mistake. Their standard of intelligence was as a rule not below but above the average. All first offenders should be condemned to a much shorter term of imprisonment on a very low diet combined with repeated and severe corporal punishments. They should make room for the fathers of abandoned and illegitimate children, and for the *souteneurs* now at large in our midst. Cruelty to helpless animals was to the eyes of God a far greater sin than housebreaking; it was only

punished by a small fine. We all knew that excessive accumulation of wealth was, as often as not, a cleverly concealed theft from the poor. I had never come across a millionaire in prison. The trick of making money out of almost anything was a special gift of very doubtful moral value. The possessors of this faculty should only be tolerated to carry on, upon the understanding that, as with the bees, a large slice of their golden combs should be distributed among those who have no honey to put on their daily bread."

Description of his clinical studies in Salpêtrière under Charcot, and of his association with Guy de Maupassant, as physician to the latter, constitute 2 fascinating chapters and disclose marked ability to understand and depict character. And throughout the whole book runs his love of nature, his passionate love for his island home—San Michele—near Capri, and his final conversion of that neglected spot into a haven of rest.

Munthe's philosophy of life is perhaps summed up in his discourse on the charity work of the Little Sisters of the Poor: "Do put some of your savings in the Little Sisters' money-box, even a penny will do, believe me you never made a safer investment. Remember what I have written on another page of this book—what you keep to yourself you lose, what you give away you keep forever. Besides, you have no right to keep this money to yourself, it does not belong to you, money belongs to nobody up here. All money belongs to the Devil who sits at his counter night and day behind his sacks of gold trading with human souls. Do not hold on too long to the dirty coin he puts in your hands, get rid of it as soon as you can or the cursed metal will soon burn your fingers, penetrate into your blood, blind your eyes, infect your thoughts and harden your heart. Put it into the money-box of the Little Sisters, or throw the damned stuff into the nearest gutter, it is the very place for it! What is the good of hoarding your money, it will soon be taken from you in any case. Death has another key to your safe.

The gods sell all things at a fair price, said an old poet. He might have added that they sell their best goods at the cheapest rate. All that is really useful to us can be bought for little money, it is only the superfluous that is put up for sale at a high price. All that is really beautiful is not put up for sale at all but is offered us as a gift by the immortal gods. We are allowed to watch the sun rise and set, the clouds sailing along in the sky,

the forests and the fields, the glorious sea, all without spending a penny. The birds sing to us for nothing, the wild flowers we may pick as we are walking along by the roadside. There is no entrance fee to the starlit hall of the Night. The poor man sleeps better than the rich man. Simple food tastes in the long run better than food from Ritz. Contentment and peace of mind thrive better in a small country cottage than in the stately palace in a town. A few friends, a few books, indeed a very few, and a dog is all you need to have about you as long as you have yourself. But you should live in the country. The first town was planned by the Devil, that is why God wanted to destroy the tower of Babel."

Medical Ethics

THE PHYSICIAN'S RIGHT TO INDEPENDENCE

(From American Medicine, September 1928.)

It seems strange that in this day and country there should be anything worth writing under such a title. Yet there exists a certain lack of comprehension as to the meaning and value of such independence both on the part of that portion of the laity occupying itself with welfare, public health and sociology and, strangely enough, on the part of the physician himself.

Let it be granted before we start that in the highly organized modern sociologic order and in a field which has such a great direct and indirect influence on the health and welfare of a nation as the practice of medicine, the right of independence can be only relative for the individual physician as it is for any citizen. However, within such limitations as are drawn by the effect of his work on the community at large and on individual citizens in particular, the physician *has* an inalienable right to independence of thought, work and economic status, individually as Doctor John Doe, of course, but far more as a member of a profession that should by its very nature occupy a place at the summit of the pyramid of our social structure, leading, counseling, making its influence felt on agencies of government and on private or semi-public welfare and health organizations and thus to an ever widening extent on the public at large. Unfortunately, it is right at this starting point that so many of us get off on

the wrong foot. We want independence as individual practitioners. We resent or dread interference by lay organizations. We want to consider everything touching on health as the sole prerogative of the medically trained mind. But many of us seem to ask for this as a divine right, failing to recognize that every right must be earned by service and that every right implies a corresponding duty.

Plainly speaking, we spend our time grouching about conditions as they affect us individually, calling on the Lord and our medical societies to maintain our standing as unquestioned and unquestionable authorities and dreading the coming of such bogies as State Medicine, Industrial Medicine, Group Practice, etc., and yet our complacent inertia is too great for us to exert any personal effort.

Believe it or not, if you wish to retain your status as an independent member of an independent and leading profession, you must shake off the fear of entangling alliances, adapt yourself to the general trend of progress and do your personal share toward making the leadership of the profession felt. The first step in this should be an interest in your county society and state society, should be a discussion of your and their relationship to the public and to those agencies which have at heart the welfare of the nation's health. The next step is to make the influence of organized medicine felt, locally, in your state and nationally. Unless this is done it will not be long before the medical profession finds itself pushed from the apex of the pyramid to a much lower status, relegated to the position of employees or quasi-employees carrying out the health policies determined by agencies far less qualified than the physicians themselves.

Economics

COMPLETE MEDICAL AND SURGICAL CARE AT REDUCED RATES

(Editorial, Indiana Med. Jour., Jan. 1929.)

At the editors' conference, held in Chicago last November, a speaker announced that already there are 500 lay organizations that have been promoted to care for medical ills at a cost less than that charged by members of the regular medical profession. In this connection it may be well to remind our readers that we are informed from a reliable source

that in Chicago a lay organization is in existence and functioning to the extent of furnishing all medical and surgical attention for 1800 patients per day on the average, and last year made a net profit of \$100,000.

The organization employs medical men on salary, the lowest salary being \$3000 per year, and the highest given a surgeon being \$10,000 per year. The service includes everything that is needed for diagnosis and treatment, and the president-elect of the A. M. A. says that the service is as good or even better than that ordinarily furnished by the regular medical profession. The enterprise was started by some wealthy and philanthropic men who saw the need of furnishing the highest grade of medical and surgical services to the great middle class that cannot pay regulation fees as charged by physicians, surgeons and laboratories. These philanthropists say that they are quite willing to turn the enterprise over to physicians, providing it will be run as it is now.

What has been done in Chicago is an indication of what will be done in every city in the country unless the medical profession solves the problem of furnishing the very best medical and surgical attention to the medium class of people at fees that can be paid without hardship. It may be argued that such institutions will be imposed upon, but with careful scrutiny of patients there need be no more imposition than now is practiced at the free clinics. In fact, it is quite possible that some of those who now go to the free clinics will prefer to go to pay clinics where they can get good service and at a price within their means. At the same time, the well-to-do will be obliged to pay the regular fees just as they do now.

The trouble with our present system is that we provide for the indigent and very poor, as also the very rich and well-to-do, but we make scant allowance for the great middle class which really makes up the bulk of our population. We may hate to have lay persons indirectly engaged in the practice of medicine, but it is a foregone conclusion that unless we do something to correct the present inequality we are going to find out that the public will take matters in hand and to our everlasting discredit and financial loss. Already the Julius Rosenwald fund has provided for an expenditure of \$30,000,000 within a specified time, every dollar of which is for the purpose of securing medical aid at reduced cost for the middle classes. The fund will be spent in establishing clinics and hospitals.

It may be said in passing that the furnishing of the highest class of medical service to all the people all the time is an obligation which falls upon the medical profession, and it should be controlled by the medical profession, and not lay persons. Some may say, "How are you going to do it?" The answer is, by organizing our medical societies for business purposes. It doesn't mean a free clinic, for it is the community's obligation to care for the indigent and the poor. However, the economic status of the individual should be taken into consideration and the fees made accordingly. Services for the indigent should be paid for by the community. Such an institution can be made to pay and pay well, without forcing a hardship upon those that are served. In fact, a very large percentage of the income will come from patients who now are treated gratuitously. The physicians who serve such an enterprise will be required to devote a definite amount of time to the institution, and will be paid for services on an equitable basis. There will be no interference with private practice.

Esthetics

OUR VIRTUOUS INDIGNATION

(From Kalends, Williams and Wilkins Co.)

Along with the desire to regulate morality by statute in the United States there has developed the despicable and most pernicious habit of investigating the private lives of public men and women, and seeking to make religio-political capital of their very human peccadilloes.

Let a constructive statesman of rare genius become involved in a private scandal and almost at once his career of public usefulness is at an end. Why?

Let an author of note, whose books may have sold by the hundreds of thousands, and have been admired and enjoyed by millions, become connected in a public way with a petty moral dereliction, and his books will not be bought. Why?

Even in the admittedly hectic career of a movie actor or actress an exposé of a private scandal spells ruin. Who cares? But again why?

Is there not ample room for wondering

whether this form of punishment is sincere? May it not be that there is somewhat of hypocrisy in our appraisals of the very *real* services of those in public life who in private life may not have lived up to *our* standards? Forgetting, as ex-President Coolidge has told us, that it's a great thing for even the chief magistrate of the nation to "mind his own business". Cal almost redeemed himself because of that one.

Strange, is it not, that when our loved ones are in "the valley of the shadow of death" we do not hesitate to entrust them into the hands of a great medical genius or a master surgeon, although it may be well known that he has stolen another man's wife? And if threatened with loss of property do we diligently search for a godly lawyer, regardless of his legal lore, or do we seek the services of one whose legal skill wins his causes and disregard his moral nuances?

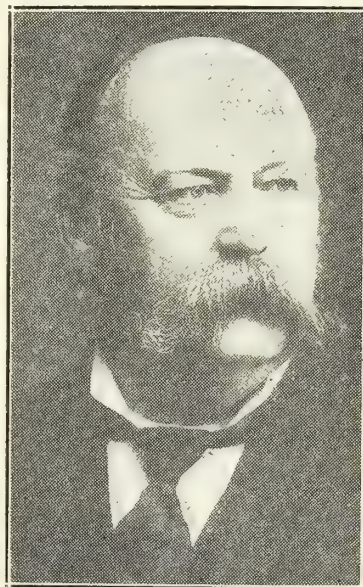
Does the world of literature owe anything to men such as Shakespeare, Poe, Walt Whitman, Verlaine, Maeterlinck, Hardy, Ibsen, Hugo, Flaubert, and de Maupassant? Who can say "No"? Yet Shakespeare was an ale souse; Poe, poor fellow, a dipsomaniac; Whitman a Broadway cellar tank; Verlaine, an absinthe soak; Maeterlinck, a connoisseur of wines; Hardy, in his younger days, never turned down a night out; Ibsen could not work without his brandy; Hugo, God knows, could swill; and Flaubert and de Maupassant tried time and again to drink one another under the table, with honors equal—both under the table. What of it? The world still remains their debtor.

Ben Franklin's private life, peaceful though it was, yet possessed enough luridness to cause a true disciple of John Wesley to see hell-fire. What of it? Ben's public life was worth to "America the Beautiful" far more than are the public services of any of the apostles of righteousness who now seek to rule the nation—individually or collectively.

Amidst all the outbursts of righteous indignation with which we godly *private* people view the peccadilloes of *public* people where does our Christian doctrine of charity fit in? Why is it that we so promptly throw our *Holy* Bible into the gutter when we smell a chance to "get something" on any individual in the public eye? Somehow or other we seem so quickly to forget the Biblical injunction of "Judge not, that ye be not judged". Why?

Special Article

MEMORIAL TO DR. O. H. SPROUL



DR. O. H. SPROUL

A tablet in memory of the late Dr. Obediah Herbert Sproul, long a practicing physician in Flemington, was presented to the State Tuberculosis Sanatorium at Glen Gardner by the Hunterdon County Medical Society. The tablet commemorates the service which Dr. Sproul performed as a physician, president of the state medical society and member of the Board of Managers of the institution. A paper telling of the career of Dr. Sproul was written by Dr. E. W. Closson, of Lambertville, and in his absence, read by Dr. Samuel B. English, superintendent of the sanatorium.

Alan Painter, of Flemington, grandson of Dr. Sproul, unveiled the bronze tablet, a photograph of which is reproduced herewith. Dr. A. Lewis Gramsch, president of the county medical society, presented the tablet and Dr. English made the formal speech of acceptance in the name of the Board of Managers. The tablet is on the wall of the Recreation Hall.

Dr. Closson's account of Dr. Sproul's life work follows:

"On behalf of the Hunterdon County Medical Society, I have been requested to say a few words to you as the representative of an institution founded and maintained for the noblest of human endeavors—the amelioration of human suffering. And surely there could be no more appropriate place for the tablet which we have unveiled than this insti-

tution in which our departed friend was so deeply interested and, by the nature of his work, so closely allied.

But to such a request for such an occasion—the presentation of the tablet commemorative of the life and services of a friend and professional associate—one can respond only with feeling of mingled pleasure and regret. There is always joy in commemorating a life of service to humanity. But sadness will creep in. We can never quite shake off the feeling that the life and the services which we commemorate have reached their end. But have they? If we could call around us today the hundreds of people who remember such

Pennsylvania, from which he was graduated in 1866. He immediately located in Stockton, New Jersey, near the home of his later school and of his college life, and there began a long and successful professional career.

In 1868, he married Amy, daughter of Robert Dilts, who lived in the same village. He practiced his profession there and over a wide scope of surrounding country until 1890. Then removing to Flemington, he continued his professional work for 35 more years.

He was elected Secretary of the Hunterdon County Medical Society in 1871 and acted as such until his death.

In 1894 he was elected President of the



services rendered by Dr. Sproul and say to them, 'All is ended', their dissent would be expressed in an emphatic 'No!' And that dissent embodies a great truth. Good works do not die with the doer. That is one of the brightest features in the medical profession or any other. Good works go on and on, a shining link in a glorious immortality.

On May 29, 1844, a son was born to Rev. Samuel and Abigail Sproul, in the county of Middlesex and state of New Jersey. They named the boy Obediah Herbert. He lived and laughed and grew; he played and worked and studied; he became the Dr. Sproul whose life and work this tablet commemorates.

His elementary education was received in the public schools, and his preparation for college under the tutelage of his competent father, who is described as preacher, lawyer and man of liberal education. He then entered the Medical Department of the University of

New Jersey State Medical Society and served one year.

Dr. Sproul was active in many ways: He served as Mayor of Flemington. He was active in the medical societies, both county and state, making a record in the latter for being absent from only 3 meetings during the 50 years of his membership.

This busy life, covering 59 years of professional services, came to a close on the thirteenth day of February, 1925. He was buried with Masonic honors. At the services in the Baptist Church in Flemington, the officiating pastor, Rev. E. W. Miller, was assisted by Dr. A. W. Sonne, a former pastor of the Flemington Presbyterian Church. In opening his address, Dr. Sonne said in apt and expressive parody of a classic: 'I came not to bury Dr. Sproul, but to praise him.'

No doubt many hearts in that crowded assembly beat a responsive Amen. And all of

us can heartily say of a life so spent in the service to humanity, 'Well done.'

When the state was preparing for the establishment of a Sanatorium for Tuberculosis Diseases many sites were suggested. Finally the choice lay between the Glen Gardner site and one on state land in Burlington County. Governor Franklin Murphy was called in to assist in the final selection and Mt. Kipp was chosen. The institution was opened in 1907 and has grown to a point where it is doing a work that is far beyond the fondest hopes of its earliest advocates. Dr. Sproul always retained his interest in the institution.

In Lighter Vein

When Neptune Has His Face Lifted

Freddy—"What is an iceberg, Daddy?"

Daddy—"Why, it's a kind of permanent wave, son."—Boston Transcript.

Reward of Shivers

Chivers—"I take a cold shower every morning."

Williams—"Why brag about it?"

Chivers—"Gosh, that's why I take it!"—Judge.

We Know Him Well

"I'm kind o' worried about that boy o' mine," said Farmer Cornloss. "He's one of those young fellows that's too smart to take advice and not quite smart enough to think it up for themselves."—Washington Star.

Turn About Is Fair Play

At a recent gathering of V. C.'s in London, the following story was told: A wounded man was being carried across No Man's Land on the back of a perspiring comrade. Rifle and machine-gun fire was heavy. "'Ere," suddenly exclaimed the wounded man, "what abaht turning rahnd an' walkin' backwards for a spell? You're gettin' the V. C., but I'm gettin' all the blinkin' bullets."—Christian Register.

Scotia's Orpheus

The invention of the harp was due to an accident, we read. On the other hand, the inventor of the bagpipes was a Highland cottager who got the idea through stepping on a cat.—Punch.

Budding Naturalist

Little Albert came home from school with a new book under his arm. "It's a prize, Mother," he said. "A prize? What for, dear?" "For natural history. Teacher asked me how many legs an ostrich had and I said 3." "But an ostrich has 2 legs." "I know that now, Mother, but the rest of the class said four; so I was nearest."—Boston Transcript.

Sour Notes

"I hear that Nero was torturing Christians again last night."

"Some one ought to take that fiddle away from him!"—The Bystander (London).

Lighthouse Observations

CAKE FOR TIRED WORKING GIRLS

(From the Literary Digest of March 15, 1930.)

Loggers in Maine have been found to bear up better under strenuous exertion when fed every 3 hours.

Office workers in England have long taken "afternoon tea" in the middle of the afternoon.

There is scientific evidence that food lessens fatigue, concludes Prof. T. L. Bolton, of Temple University, Philadelphia, after exhaustive tests on 20 office girls. Girls have been lowering their stamina, he thinks, by "reducing" to get fashionably thin, and they need an extra meal all the more. Says *The Scientific American* (New York), in an account of Professor Bolton's experiments:

"Fatigue, diet, and the working capacity of the modern business girl are closely related, and fatigue can be offset by the timely ingestion of highly concentrated, energizing foods.

Dr. Bolton, of Temple University, has concluded a research in which 20 feminine office workers were subjected to tests of speed, endurance, mental alertness, and muscular control.

Back of the investigation, according to Dr. Bolton, lies the growing belief on the part of employers that unwise reducing diets are responsible not only for frequent illness but for decreased volume and lowered quality of work. As the food within the body approaches exhaustion, work power begins to fall, and fatigue sets in.

'Our studies soon showed', Dr. Bolton says, 'that working capacity is comparatively low at the beginning of the office day. Capacity appeared to increase until about 2.30 in the afternoon. From that time on, except for a spurt at the end, the curve seemed to fall with a fair degree of steadiness.

It is well known, however, that in the average office the hours between 2.30 and 5 cover the period of greatest rush and strain. The falling curve occurs at the worst possible time. We sought to determine to what extent working power may be sustained at its early afternoon peak by eating suitable foods. Foods having a high sugar content were selected because sugar is not only a concentrated energy food, but one which is quickly assimilated by the system.'

The 20 girls were divided into 4 groups. One of the groups, the 'full-food group', was supplied each afternoon with a light meal consisting of cake, candy, and sweetened orangeade. Two 'mixed-food groups' were supplied with the repast on designated days, skipping it on others. The fourth group, known as the 'control group', went through the tests without partaking of the additional meal.

Five different tests were employed, all of which have proved their value in the psychologic laboratory. In the 'tapping test', the girl tapped upon a metal plate with a stylus at top speed for 15 seconds. Five periods of tapping alternated with 10-second rest intervals. Each tap was recorded by an electric device. Both hands, one after the other, were tested.

Coördinated muscular action was measured by the '3-hole test'. This consisted of making electric contacts by placing a stylus successively in 3 small holes in a metal plate, the holes being just large enough to permit entrance of the stylus. The score made in the test was determined by the time it took to make 80 contacts.

The 'substitution test,' employed to measure mental alertness, consisted of correctly placing 5 letters of the alphabet on a chart covered with rows of 5 different geometric figures. The key was given at the top of the chart.

All of the girls showed marked practice gains as they became familiar with the tests, Dr. Bolton says.

This had to be taken into account in compiling the results. Aside from practice gains, the 'control' or 'no-food group' continued to show the low beginning, the rise until about 2.30, and the falling off until the closing spurt. Tests given to members of the later groups show that they were sustained at a higher working rate than the girls in the 'control group'. To quote further:

The investigation has shown positive results in favor of small quantities of concentrated food taken in mid-afternoon. The physical and mental let-down which is apt to occur at the busiest period of the business day is to a considerable extent due to insufficient and improperly balanced diet, and can be largely, if not wholly, prevented by eating foods that in small volume act as quick fuel for the body engine.

Although we dealt only with feminine workers, our findings apply with equal force to the opposite sex. Perhaps, however, special emphasis should be laid upon the support these findings give to the opinions of those who have held that reducing diets are responsible for impairing the efficiency of the modern business girl.

On the basis of our findings, hard-working business and professional men and women would do well to keep in the drawer of the desk a box of candy or candied fruit. When energy begins to flag, in mid-afternoon, these quick-action foods will act as an emergency ration and supply the calories needed for the rest of the day's work. The sugar in afternoon tea, or in sweetened cold drinks, will have the same effect.

Approximately 500,000 calculations were necessary in compiling, tabulating, and comparing the records of the 20 girls."

(The ways of "scientific" investigators are strange. Here we have 500,000 calculations—to arrive at a conclusion that any 5-year-old child would have reached in one single response and practically no calculation. The craving for "sweets" and the "pick-up" value of candy are among the most natural of human experiences, and you can find a box of candy on our desk and in our traveling bag at most any time.—*Editor.*)

Public Relations

DR. HARVEY W. WILEY

(Editorial, N. Y. Times, July 2, 1930; a well deserved tribute.)

If any man of peace deserves to be buried with the honors of war, it is Dr. Harvey W. Wiley. For nearly 50 years he fought for pure food. Of sturdy pioneer stock, with a native talent rigorously disciplined and thoroughly trained, with an inflexible purpose and courage to match it, with a sense of humor and a happy faculty of expression, he was one of the most engaging figures in American public life of his day.

His was no path of roses. It was inevitable that if he did his duty up to the limit of his knowledge, he would make enemies, but he never hesitated even if the violator of the pure food law was a friend of the President of the United States. For-

bidden by his superior officer, the Secretary of Agriculture, to make public references to a certain substance which he considered harmful to health, virtually supplanted in his functions as head of the Bureau of Chemistry by an advisory board that had no authority under the law, recommended for "condign punishment" by the Attorney General though exonerated by President Taft, he at last resigned to carry on unofficially the battle through writing and speaking, and outlived the board which, as he believed, frustrated his beneficent official plans. Not only was he the "father of the pure food law"; he also had a part in furthering pure food legislation in almost every state.

He fought impurity, but he also fought dishonesty in labels. In pre-prohibition days he said publicly that he believed 85% of the whiskey sold over bars in this country was adulterated, most of it a compound "artificially colored, often flavored with artificial essences and sometimes mixed with more or less straight whiskey to give a flavor". He succeeded in getting varying kinds of whiskey properly labeled, but with the coming of prohibition the Volstead definition superseded all these distinctions.

Dr. Wiley was a doughty spirit, a good-natured prohibitionist. He fought a good fight and kept faith with the science to which he gave his life, unembittered by criticism, fair or unfair, unmoved by prospect of loss of position, unafraid of death even, looking upon it "as much of a biologic matter as birth".

He made lengthened life possible for others, and himself happily lived to a ripe old age—though 85 seems too early for one of his vigor of body and mind to go.

TIME-WASTING DOCTORS

(Editorial, Saturday Evening Post, June 21, 1930.)

The wealth and variety of available statistics are amazing, and yet the earnest seeker for knowledge who would substitute facts for surmise and guesswork too often finds that the statisticians are silent and can give him no help. We have often wished, for example, that we could find some authoritative figures to tell us the cash value of the time that patients are forced to waste in the waiting rooms of medical and surgical specialists who are dilatory about keeping appointments, and who allow those with whom they have engagements for a definite hour and minute to twiddle their thumbs and leaf over dog-eared magazines in outer offices for periods ranging from half an hour up.

These specialists are usually very busy and often overworked men, but they are no busier and no more overworked than many of their patients, who, nevertheless, manage to be on time for every engagement and regard promptitude as an obligation just as real and tangible as the payment of the butcher's bill. Indeed, the busier and more important an executive is, the more likely he is to keep his appointments on the dot, for he is as unwilling to keep others waiting as he is to have his own time wasted in the same way. Punctuality is as much a part of the ethics of business as it is of its policy and its code of good manners.

Broadly speaking, the highly specialized wing of the medical profession, with all its virtues—and they are legion—has never learned this fundamental of business; and, as a consequence, patients suffer annoyance, vexation and delay, to say nothing of the money value of their wasted time. The famous and the obscure are often sin-

ners alike in this regard. This is perhaps the chief reason why many busy men of affairs fight shy of doctors' offices and deny themselves the benefit of expert advice as long as they dare.

The specialists will declare that their business is different and cannot be run on a time-table. This answer might appear convincing were it not for the fact that there are many doctors—specialists of high degree—who have shown its fallacy by so organizing their own work and their own offices that they receive those who call by appointment with as much punctuality as if they were bank presidents or great industrial leaders.

This happy faculty for being always on time is indeed partly the result of planning and organization, but it is also very largely a matter of habit and of mental attitude toward others. Even in professional offices the Golden Rule is 24 carats fine.

There are many methods and systems whereby this promptitude is insured. It is not likely that any one method would be the best suited to every office, but there is probably some system that would meet the requirements of any particular set of conditions. There is, for example, an eminent New York internist who is at his hospital every morning at 7 a. m. and sees his first office patient at 8.30 precisely. He divides his morning into consultation periods of 12 minutes each. Lengthy examinations are allotted 2 or more periods, and if they do not suffice, supplementary appointments are made for other days. This physician reserves his afternoons for emergency consultations and for short-notice appointments for those who are willing to pay double fees for immediate attention.

This is a simple system, but it works. It makes punctuality possible. In another office it might produce naught but chaos, but this is not to say that some other method might not bring about equally good results.

The resources of medicine and surgery are increasing faster than ever before. The odds on the patient's ultimate recovery or cure become greater year by year. It is a pity that the personal efficiency and the office organization of our specialists should lag behind the steady forward march of their science.

A LETTER FROM A READER

(A pathetic story, from the Ladies Home Journal, March 1930.)

"My son Jack, age 4 years, 4 months and 27 days, died March third of diphtheria, and on March sixth my wife read an article in the Journal about the toxin-antitoxin that prevents diphtheria.

My wife did not believe in the prevention. If only it could in some way be told to other young parents in time, and so they would understand! I am doing my part in this locality—telling them to see their doctors at once.

It is a hard problem, I know, but it should in some way be impressed upon parents. It is hard now for us to bear up under our loss. All I ask is if there is not a way of putting this story before all readers. It is true to the word, and every word."

These parents should not blame themselves, although their tendency will be, perhaps, to do so. The fault should really be charged up as another claim against false propaganda, which in the past has prejudiced the minds of many intelligent parents, to the point where they honestly and sincerely have doubted the efficacy of prudent medical skill.

Current Events

CONGRESS AMENDS PORTER NARCOTIC BILL

(Editorial, Jour. A. M. A., June 14, 1930.)

The Porter narcotic bill to reorganize the federal narcotic service, H. R. 11143, amended to meet the only major objection raised against it on behalf of the American Medical Association, was passed by the Senate, June 5. The House of Representatives has agreed to the amendment. (It has since been signed by the President.) The amendment made at the instance of the Association requires the Secretary of the Treasury to cooperate with the states in enforcing state laws to prevent the abuse of narcotic drugs and to cooperate, if necessary, in the formulation of state legislation to accomplish that end. The companion Porter narcotic bill, H. R. 9054, which proposes that the federal government take over the functions of the states with respect to the control of narcotic drugs and narcotic addiction, is thus left without justification or excuse for its enactment.

The request made on behalf of the American Medical Association for incorporation in the bill of an amendment to the Narcotic Drugs Import and Export Act to permit the importation, for use in research by accredited laboratories, of derivatives of opium and coca leaves not obtainable in the United States, brought from the manufacturers of narcotic drugs in this country an agreement to manufacture any such derivative, whenever needed, in such quantities as may be desired for the purpose named. The suggested amendment was therefore not incorporated in the act.

The act passed creates a bureau of narcotics in the Treasury Department and provides for the correlation of its activities with those of the bureau of customs, the Public Health Service and the narcotic services of the several states. The Federal Narcotics Control Board is abolished. The functions of that board, which relate solely to importation and exportation of opium and coca leaves and their derivatives, and the functions of the bureau of prohibition so far as they relate to the enforcement of the Harrison Narcotic Act, are transferred to the new bureau. The bureau of narcotics will be under supervision and control of a commissioner of narcotics, appointed by the President, by and with the advice and consent of the Senate, at a salary of \$9000 a year. The act authorizes appointment by the Secretary of the Treasury of a deputy commissioner of narcotics, without reference to the civil service laws. The qualifications necessary for the appointment of either of these officers are not specified. Officers and employees of the bureau of narcotics may be vested with the authority of customs officers and employees and assigned to duty at ports of entry and other places in order more effectually to check the smuggling of narcotic drugs into the United States. The Surgeon General of the Public Health Service is authorized to study and investigate the abuse of narcotic drugs. He is required to estimate the quantities of crude opium and coca leaves, and their salts, derivatives and preparations necessary to meet the normal and emergency needs of the United States, such estimates to be available for guidance of the commissioner of narcotics in determining the quantities of crude opium and coca leaves that may lawfully be

imported. The Surgeon General is authorized also to study the prevention and treatment of mental and nervous diseases, and the narcotic division in the office of the Surgeon General is hereafter to be known as the division of mental hygiene.

Although the companion Porter narcotic bill, H. R. 9054, pending in the House of Representatives, still carries the menace of a federal narcotic dictator, amendment has purged of that threat the bill just passed. As it now stands, it is susceptible of use as an effective agent for the building up of powerful and well coordinated federal and state machinery for the supervision and control of narcotic drugs and narcotic addiction. How far it will accomplish that result will depend on the wisdom of the President in the selection of the Commissioner of Narcotics and the wisdom of the Secretary of the Treasury in appointing a deputy commissioner. The medical profession is ready to do its part.

MEETING OF THE A. M. A. HOUSE OF DELEGATES

(Reported by Delegate W. Blair Stewart, M.D.)

The eighty-first annual meeting of the American Medical Association was held in Detroit, Michigan, June 23-27, 1930. The Medical Society of New Jersey was represented by its 4 delegates, E. R. Mulford, John F. Hagerty, Philip Marvel and W. Blair Stewart. All attended every session of the House of Delegates. Dr. Mulford served as an appointed member of the Committee on Reports of Board of Trustees and the Secretary. Finally registered present were 160 delegates; 4 sessions of the House of Delegates were held.

President M. L. Harris addressed the House and recommended that a Bureau on Medical Economics, with permanent headquarters at the home office in Chicago, be established to study all economic problems affecting the profession. It shall function under the Board of Trustees and reports shall be made both to the Board of Trustees and House of Delegates. The House approved and the By-Laws were amended to cover this action. President-Elect Dr. William Gerry Morgan suggested the propriety of a midyear meeting of the House at Chicago headquarters, but this was left to the discretion of the Board of Trustees. He also discussed the high cost of hospitalization and other subjects.

The work of the Committee on Medical Education on Hospitals, Clinics, Colleges, Clinical and Radiologic Laboratories was endorsed and commended. Reference was made to the preceptorial assignments of the senior medical students of some colleges and the subject will be studied closely and report given next year. A resolution, designated to reduce the hazard from small attachments to children's toys which may become detached and aspirated into the respiratory passages, was adopted. The intent is to take some concerted action designed to educate the manufacture of these and similar articles to the very real hazard involved and to persuade them to so modify their products as to reduce or eliminate the danger to which young children are exposed.

The report of the Board of Trustees was elaborate, interesting and showed a vast amount of work done. The House approved its recommendation of educating the public in all matters pertaining to public health and disease. "The medical profession has been too reticent and conserva-

tive in taking a position of active leadership in health activities, particularly with reference to the education of the public along these lines." A resolution was passed calling upon the Federal Radio Commission to censor strictly, under the guidance of national, state and local medical societies, medical broadcasts and to cancel the franchise of those stations that have and are being used to advertise fake and improper methods of medical treatment and the sale of patent drugs and surgical appliances. With a preliminary discussion of automobile accidents, the necessity of all drivers of motor cars proving that they are mentally sound, have good eyesight and hearing and are physically fit to operate a car in public places, a resolution was passed calling upon all states to require strict examinations of all drivers along the lines stated to prove their efficiency. The statement was made that at this time only 31 of the 48 states require an examination for auto drivers.

On recommendation of the Board of Trustees the official color for all documents of A. M. A. shall be "Academic Green". The House approved the recommendation of the Section on Neurology and Psychology that psychiatric boards should be established in each state to be available to every court needing expert testimony. The idea is to eliminate the very unpleasant and questionable discredit that has been cast on the profession by commercial and money-making experts, so called. This will require much discussion with the American Bar Association. The problem of mental disorders and defectives and the mental health of the country is one of the most serious situations with which the profession is now concerned. Also the hospitalization and care of an increasing number of mental patients is one of the most difficult economic situations affecting the profession. It was directed that a committee of 5 be named to study the situation and report a plan of action by the association. It was also directed that all hospitals caring for mental patients should be investigated with a view to their standardization.

A resolution was offered directing the Board of Trustees to fully investigate and obtain more moderate hotel rates at meetings. There was much criticism on the part of a large number of delegates who claimed that they had been grossly overcharged at some past meetings. This has become so acute that it has materially interfered with the invitations of some cities. Strong protest was registered against the Internal Revenue requirements that all narcotic and liquor prescriptions shall specify the specific disease for which medicine is ordered. It is held that the courts protect the patients in legal testimony of physicians by refusing to allow, in many cases, a physician to name or divulge the specific disease of those on trial. Why then should the Internal Revenue Department call for a divulgence on a prescription of many private disorders. What is sacred in one case should be so in another. It was decided to bring every possible influence on the department to amend this phase of the law.

Much discussion was elicited on resolutions presented opposing the Federal proposed law regarding the establishment of hospital facilities and treatment of Veterans of the World War who desire hospitalization and treatment for diseases and injuries that admittedly have no relation whatever to military service. It was the feeling that the duty of providing medical and hospital care and financial relief for indigent citizens of any state, when disabled by diseases and injuries that did not originate in the line of military duty, is a function not of the Federal Government but of the governments of the several states, and should

be discharged through state agencies, including permanently established state, county, municipal and private hospitals. It was made clear that the A. M. A. stood solidly behind the care of every veteran whose claim came as a result of his direct service.

On the recommendation of Dr. William Gerry Morgan, president of the association, the House of Delegates reelected Dr. George E. Follansbee, of Cleveland, as member of the Judicial Council; Dr. Charles E. Humiston, of Chicago, member of the Council on Medical Education and Hospitals, to succeed Dr. Louis B. Wilson, of Rochester, Minn., and Dr. Frank Smithies, of Chicago, member of the Council on Scientific Assembly, to succeed Dr. J. Shelton Horsley, of Richmond, Va.

Officers of the association elected by the House were: Dr. E. Starr Judd, of Rochester, Minn., president-elect (to take office in 1931); Dr. Louis J. Hirschman, Detroit, vice-president; Dr. Austin A. Hayden, Chicago, treasurer (reelected); Dr. Olin West, Chicago, secretary (reelected); Dr. Frederick C. Warnshuis, Grand Rapids, speaker of the House (reelected for the twelfth successive year); Dr. A. E. Bulsen, Fort Wayne, vice-speaker; Dr. Joseph E. Pettit, Portland, Ore., trustee; Dr. J. H. J. Upham, Columbus, O., trustee; Dr. Thomas Cullen, Baltimore, trustee.

Philadelphia was chosen as the place of meeting in 1931. The total registration of the Detroit meeting was 5104. New Jersey registered only 35 which was far too small a number for such a close and excellent meeting. The 15 sections of the association were favored with over 300 manuscripts, many of them of the highest type. The Scientific Exhibit was one of the best and showed much work. The commercial exhibit was, as usual, very interesting, instructive and well housed.

At the close of the general meeting, held in the main auditorium of the Masonic Temple, at which over 2000 were present, the Board of Trustees, through its President, Dr. Edward B. Heckel, presented a gold medal of service to every one of the living past presidents of the association; 12 past presidents were present and each was given a great ovation. The entertainments given by the ladies and profession in Detroit were greatly enjoyed. One of the most unique and pleasant was the dinner by the Michigan State Medical Society at the Detroit Yacht Club. This was given to the officers, trustees and members of the House of Delegates. Dr. Charles G. Jennings, dean of the medical profession of Detroit, presided and in turn introduced 11 of the past presidents of A. M. A. who were present. Each was asked to tell what event in his life most influenced him in his career. Most answered, "My father", by his influence in his own medical life.

Woman's Auxiliary

WHO'LL PROVIDE?

The Physicians' Wives' League of Greater New York—An Experiment in Mercy

Mrs. Julius Ferber, President

(At the request of one of our members, we are presenting an abstract of this article as it appeared in Medical Economics, March 1930. At the same time we would direct attention to similar work by the Society for Protection of Widows and Orphans of Physicians of New Jersey. Inquire into this and have your doctor consider joining.—Editor.)

Consider the case of a physician, married, with 3 dependent children, who finds himself definitely disabled, barred from the further practice of medicine at the age of 45. His earlier years, when, had he been in another field of endeavor, he might have been establishing a competence, were spent in a struggle to become established. He was 28 years of age when he finished his internship, 30 before he began to practice medicine for a living.

After several years of struggle and disappointment, he finally managed to obtain a steady income of several thousand dollars a year. He married, and took out as much life insurance as his income at the time would afford. It was in the amount of \$10,000, which he hoped to increase gradually as his practice gained. Five years passed, and he applied for another \$10,000 policy. He was rejected. Several attempts met the same result. And then came the disaster; disabled at 45. His savings vanished during the first year of his disability, including all the money received from health insurance policies.

This is not a picture conjured up by the imagination of the writer, but is an incident that actually happened in New York City. It serves to illustrate again how terribly true is the fact that medicine is a one-man business. When the doctor dies, or is disabled, there is nothing left but a few instruments. There are no other assets.

Some physicians have even ventured the rash statement that they cannot see the need for this kind of work. I have been told by some medical gentlemen that any physician who is worth his salt would provide for his family in case of an emergency. Statements like these obviously betray naiveté. Any person alive to his surroundings has heard of or has come in contact with just the kind of case I have described at the beginning of this article. What possible precaution could this physician have taken against misfortune as outlined above? It is quite unreal to think that physicians are immune to the adversities common to all walks of life.

Physicians as a class are by tradition so much the givers that some of them cannot see themselves in the rôle of receivers of charity. There was a time when medical men did not take any notice of the economic factors incident to the practice of medicine. The average physician confined his activities to a limited locality where he was known and revered by all the members of his community, and the economic side somehow or other took care of itself. In case of any emergency, the members of the community were vitally interested in the physician and his family, and they were directly or indirectly provided for.

The conditions of medical practice, like those of all other human activities have undergone a decided change. Physicians administer to people unknown to them before or after the professional services terminate. The patient's attitude is that of one who has purchased something he needed and for which he has paid the price. With the development of medical centers and pay clinics every vestige of personal contact is being lost. Patients are talking of how "good a clinic" this is; instead of how "good a doctor" he is. Under these circumstances a physician is subject to the same ups-and-downs as any individual in our modern economic system. There constantly occurs an ever larger number of needy and deserving cases, but the medical profession is too proud to admit it and the unfortunate physician is left to shift for himself.

The medical profession takes no cognizance of

the doctor's widow and orphans. Once the physician dies, his family cannot even get the sporadic and temporary aid that medical relief organizations would extend to the disabled physician. Here is a field for constructive work entirely untouched by any relief or charity organization. The Physicians' Wives' League is the only organization to come to the aid of these disappointed creatures who are left with enough pride and self-respect to find it impossible to apply to the regular charitable institution.

The Physicians' Wives' League is an experiment, but it has rendered enough service to physicians and their families to compensate its members for their effort and expense, and to inspire them with the hope that its work will be duplicated in many a large city where there undoubtedly exist unfortunate cases worthy of consideration and help.

In a case such as I have just stated, where can the family turn? The wife becomes panic-stricken, and has not the least idea of how to adjust herself to the changed situation. The physician's condition is aggravated by his worry and anxiety for his family—but he is helpless.

His only consolation (if consolation it can be) is that he did all that was humanly possible for anyone under his circumstances to do. He has the respect of his family, of the profession, and of those of the public who knew him. They all appreciate his upright living, his ethical conduct and his interest in medicine as applied to the prevention and treatment of disease.

It is here that an organization like the Physicians' Wives' League of Greater New York finds its greatest opportunity to serve. Such cases are the primary concern of the League. When one is brought to our attention, our committees make a complete survey, including the possibilities of making the mother the supporter of the family, and render an immediate and humane aid.

Organized in 1926, our organization is, so far as we know, the only one of its kind in this country and probably in the world.* Being a pioneer in its particular field, the League at once arrests attention. It is my purpose to tell you about the objects of this organization—what we aim to do.

As it stands alone in its limited field of activity, it has the obvious advantage of being original, and not a mushroom organization duplicating and over-lapping the work of many kindred units. But originality cannot be accepted as an end in itself. Doing something new may attract attention, but it does not justify the effort extended unless the original idea has something of value to offer.

Such immediate aid as is necessary is given not in a lump sum but in weekly or monthly allowances. Our employment bureau is at work to find employment for the physician's wife of the kind she is most fitted for by training and the circumstances of the case.

Next comes the consideration of the children. They are to be given every opportunity at our disposal, for proper physical and moral development and are to be educated in a manner best adapted to their ability. The ordinary child is given a commercial training fitting her for clerical work. Gifted children have their talents developed in a practical way. The studious child is to complete its preliminary and secondary education and finally our "Scholarship Fund" provides for their college training.

Our women have shown a most excellent spirit and sympathetic inclination. They give of their

time, money, and talents unsparingly. Such an ambitious program, however, needs large funds and it is here that most of our difficulty lies. Our organization is an experiment, and it is natural enough that most people, both lay and professional, endow it with an overdose of precaution and skepticism.

*(The Society for Relief of Widows and Orphans of Medical Men of New Jersey has been in existence for 49 years and is still flourishing.—Editor.)

Hunterdon County

Reported by Mrs. G. B. Tompkins

JUNE MEETING

The Woman's Auxiliary to the Hunterdon County Medical Society held a meeting, Monday, June 30, at the home of the President, Mrs. L. A. Hamilton, in Lambertville.

Mrs. George N. J. Sommer, Mrs. James J. McGuire and Mrs. Samuel Sica, of Trenton, members of the Mercer County Auxiliary; and Mrs. R. C. Magill, of New Hope, a member of Bucks County (Pa.) Auxiliary, were present. Mrs. Sommer gave a most interesting report of the state meeting in Atlantic City.

A vote of thanks was given to Mrs. Hunter for her interest in our work during the past year. A report of the Society for the Relief of Widows and Orphans of Medical Men of New Jersey was presented for our consideration.

Following the meeting a delightful luncheon was served at the old Stockton House, Stockton, N. J.

JULY MEETING

Mrs. E. C. Taneyhill, Field Secretary of the Auxiliary to the New Jersey Medical Society, was a speaker at the meeting of the county auxiliary. She gave a report of the State Auxiliary meeting at Atlantic City and the National Auxiliary at Detroit.

A discussion period followed, the topic being ways and means of developing a community health program.

The members were guests at the luncheon and exercises in the morning, given by the county medical society, and they included: Mrs. Fulper, Mrs. Fuhrmann, the Misses English, Mrs. Tompkins, Mrs. Thomas, Miss Dorothy Thomas, Miss Lillian Schenk, Mrs. Sommer, Mrs. McCorkle, Mrs. Boyer, Mrs. Hamilton, Miss Coleman, Mrs. V. C. Hyde and Mrs. Eleanor Painter. The latter 2 are daughters of Dr. Sproul.

County Society Reports

ATLANTIC COUNTY

Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The monthly meeting of the General Staff of the Atlantic City Hospital, held in the auditorium of the hospital on June 27, was called to order by President David B. Allman.

The scientific program was presented by Dr. Joseph H. Marcus, Chief of Pediatric Service, and Dr. E. Harrison Nickman.

Dr. Marcus: The statistical report herewith submitted embodies 6 months—July, August, September 1929, and January, February, March 1930. Classification diagnoses presented. In this report

I have attempted to briefly portray some usual and some unusual problems that confronted us, and should they appear more or less elementary, I ask your indulgence.

The largest proportion of cases treated during the winter and early spring months were respiratory in type, while a continuation of those conditions, associated with the warm summer months, continue to be well rooted in the garden of memory—the gastro-intestinal upsets, these latter types due mostly to mechanical irritation produced by indiscretion in diet, and often accompanied by a parenteral infection, either primary or superimposed. It would be appropriate at this time, with the advent of warm weather, to emphasize the fallacy of the so-called second summer; that this illusion, which still clings like a burr, should be properly designated as “indiscretion in feeding”. At this age the infant is old enough to have its diet enlarged and not infrequently disaster follows. I have seen deaths occur, directly traceable to a definite history of injudicious feeding. However, it is well to keep in mind when treating these infants with “abdominal distension” and vomiting, the possibility of an existing appendical irritation or ruptured appendix, with its usual accompaniment, peritonitis. At times these diagnoses revolve around a bottomless sea of speculation with an absence of diagnostic criteria. It is needless to mention that on these devastating occasions, the full use of laboratory procedures is of paramount importance, especially urinalyses and blood interpretations.

A troublesome condition that we not infrequently meet with in the infanteriorum and infants' ward is impetigo, both in the new-born and the infant. I shall not enter into a discussion of the causation and methods of transmission, but emphasizing the most important element in treatment. Whether one uses washes of potassium permanganate or bichloride of mercury, followed by the local application of 1% aqueous solution of gentian violet, mercurochrome, ammoniated mercury ointment, hexylresorcinol, white iodine, or any other medication, satisfactory results will be obtained as a rule, if the vesicle is denuded down to the underlying skin and the local medication applied thereto. The application of ultraviolet rays has proved of decided benefit in hastening a cure.

A surgical convalescent patient was transferred to the pediatric division with the chief complaint designated as cough. The administration of the usual cough sedatives failed to give relief. It is obvious that a diagnosis of pertussis can readily be made in the spasmodic or second stage, but an attempt is always made to secure an early diagnosis with prompt use of large doses of vaccine.

The history of this child was suspicious of early pertussis as proved by the subsequent course of events. Of late, much stress has been placed upon the differential blood count in the early stages of pertussis, and we make use of this diagnostic aid whenever possible. It is the consensus of opinion that there is a marked leukocytosis in the early stages which far exceeds that of any other febrile disease of the respiratory tract. The total count is usually between 15,000 and 30,000 and there is a great increase in the lymphocytes at the expense of the polymorphonuclears. The discovery of the Bordet bacillus in the sputum may be considered diagnostic. My own preference in the vaccine treatment is the use of the mixed, giving 3 doses at intervals of 2 days, calling this the prophylactic dose; then allowing an interval of 3 days to elapse. If there is a continuation or ex-

aggeration of the coughing, either 2 or 3 additional doses are given at intervals of 2 days. Large dosage should be used if results are to be obtained, and the parents are always told that the inoculations might be productive of no benefit whatsoever, but on the contrary excellent results frequently follow, and administration is practically devoid of consequential harm. A few years ago ether was advised to be given intramuscularly, deep into the buttocks. This procedure in its administration, however, not infrequently caused abscess formation and subsequently was abandoned. Ether was then used, mixed in olive oil, and instilled into the rectum, and very recent work by Dr. Levy, of Newark, and his coworkers favors the use of ether in oil intramuscularly, which combination is now made in ampul form. I feel its use worthy of trial.

A premature baby was admitted in a cyanotic condition, marked irregular breathing, vomiting and with moderate abdominal distension. This baby had been cared for in a home of rather moderate circumstances, with the result that the essential requirements in the care of the premature or congenitally weak infant were neglected. The institution of prompt and indicated procedures were highly satisfactory. These babies in the aforementioned type of environment, which is certainly not conducive to progress, should be hospitalized immediately and no attempt made to continue treatment in the home. The principles involved in their care center around (1) maintenance of body heat, by placing in an incubator, either the standard type or home made, in a temperature between 80-90° F; (2) avoidance of infection; no one allowed near the baby, even with a slight cold; (3) avoidance of overhandling; (4) adaptable food, preferably breast milk.

By early hospitalization with proper care the mortality of prematurity or congenitally weak infants can be decreased to a marked degree. The functional backwardness of the central nervous system of the premature baby is shown particularly by its striking quietness, and the most important symptom resulting from the defective development of the central nervous system is the imperfect functioning of the respiratory center. The respiratory attitude of this baby resembled the mechanism of Cheyne-Stokes breathing, probably brought about as follows: The breathing of premature infants usually takes place quite superficially and irregularly, resulting in the imperfect expansion of the fetal lungs, which is overcome very slowly, and imperfectly. The gaseous exchanges are insufficient and excess of carbonic acid occurs in the blood, which for its part is unable to stimulate the inexcitable respiratory center. Finally the cyanosed baby ceased to breathe and only after a remarkable and relatively long interval, the threshold of stimulation is passed and breathing again takes place. These intermittent attacks of cyanosis and irregular breathing ceased following several doses of caffeine sodium benzoate, with a subsequent gradual gain in weight. If these attacks continue to occur, despite suitable therapeutic measures and at progressively shorter intervals, they constitute an ominous symptom and in one of these attacks death finally occurs. The cyanotic attacks are often inaugurated by purely mechanical means by the aspiration of food or vomited material. The ease with which aspiration occurs is another result of insufficiency of the nervous system, namely defective reflex function.

A vexing problem in infancy and early childhood confronting us at times, is the probability of involvement of the mastoid antrum, with an

absence of otorrhea. An infant about 1 year of age seen in consultation presented the following salient features: One week prior to admission the baby became fretful, developed mild coryza which lasted for a brief time, loss of appetite, and a slight increase in temperature. The following day the right tympanum was moderately injected. Paracentesis was done on the following day with no otorrhea following and at no time was there any aural discharge. Meningism was noticeable a few days later and spinal puncture revealed clear fluid (as compared with tap water) under increased pressure. Laboratory examination disclosed nothing of importance. At this time mastoid antrotomy was performed. Disregarding the constant absence of otorrhea, it is important to bear in mind that definite and even extensive mastoid disease can occur on rare occasions in the absence of otorrhea. Watson-Williams reported a series of 15 cases in patients ranging from 1-34 years of age. He summarized as follows: (1) There is often no preceding illness. (2) There neither is on examination, nor ever has been, any otorrhea. (3) Pain may be slight or have ceased. (4) There may be little or no tenderness. (5) Fever may be mild or absent. (6) No edema may be discoverable. (7) The tympanic membrane may appear quite normal.

The baby was operated upon and necrotic bone found, the interstices containing pus.

Baby H., 20 months old, had an internal strabismus, and was advised to consult an oculist as to the advisability of wearing corrective glasses. A prescription of homatropin was given. Insufficient pupillary dilatation was obtained; the following morning the child was taken to the office of the physician and more atropin was instilled in both eyes. Two hours later the temperature rose to 105° F., and symptoms of severe atropin poisoning were present, namely, dilatation and immobility of the pupils, rapid and thin pulse, flushed face resembling a scarlatinal eruption, convulsions, during which the face assumed a livid appearance. As a rule this is a grave prognostic omen. Atropin and belladonna are valuable and frequently employed drugs used in pediatric practice and it is not uncommon to note elevations of temperature, due directly to the medication. Caffein sodium benzoate was injected intracardially, morphin hypodermically and artificial respiration was induced. For several days the temperature remained elevated and the child remained in a semistuporose condition; being unable to see; the pupils being markedly dilated as a result of paralysis of the ciliary and sphincter muscles. The symptoms gradually subsided and no after effects have been noted. I believe that this child possessed an idiosyncrasy to the belladonna family, as I distinctly recall its marked response to the use of a belladonna mixture for coryza. However, it is well to observe caution in the administration of eye drops into the eyes.

The development of a retropharyngeal abscess in a hospitalized infant, aged 5 months, prompts the etiologic consideration of an unusual factor. The usual etiology is an infection of pharyngeal wall by pathogenic organisms. The infection may be secondary to severe infection of the tonsils or directly from a tuberculous process in the cervical vertebra. Due to unwillingness of the infant to take food from the bottle, gavage had to be resorted to at daily intervals during a period of many weeks. And it is possible and not by any means improbable that the constant and regular trauma induced by the catheter found a fertile soil for irritation on the delicate and receptive

membrane of the pharyngeal wall as it passed on its way into the esophagus and stomach. In any event it is well to keep in mind that a traumatic phase can be within the realm of possibility in producing either a pharyngeal or retropharyngeal abscess, by constant gavage in an infant.

Tuberculosis pleurisy with effusion is uncommon in childhood and rare before 8 years of age, being secondary to a tuberculous focus in the lungs or bronchial glands. In rare instances does it result from extension of a tuberculous process in the vertebra or ribs. In exceptional cases a pleural invasion by way of the lymph channels from the peritoneum or cervical glands occurs. Trauma of the chest wall is at times supposed to produce a *locus minoris resistentiae* whereby a quiescent focus in the chest is re-activated and a pleurisy with effusion results.

A boy 8¼ years of age was admitted to the hospital with a symptomatic attitude expressive of a respiratory condition. Temperature 103.2°, pulse 130 per minute, and respiration 45 per minute. Expiratory grunting was obvious as well as dilatation of the ala nasi. No cough was present. The boy was punched on the right side about 10 days prior to the onset of his illness. The salient features revealed by physical examination were diminished movement of the right side more noticeable at the base, posteriorly and anteriorly below the fifth interspace. The apex beat was not displaced to the left, diminished vocal fremitus and flatness over the affected area, distant bronchial breathing.

A tentative diagnosis of pleurisy with effusion was made, the causable factor being undetermined at that time. Suspicion, however, strongly pointed to a tuberculous background due to the positive family history, in the immediate family. A Mantoux test was done on the following day, using the first and weakest dilution of tuberculin. In 24 hours a severe and marked reaction occurred, lasting for 5 days. Aspiration yielded about 65 c.c. of turbid, straw-colored fluid, which contained numerous pus cells, no tubercle bacilli or other organisms present. No guinea pig inoculation was done. The blood and urine were essentially negative. The roentgenographic interpretation coincided with the physical findings, revealing pleurisy with effusion, in addition to noting hilus shadows, probably glandular hyperplasia; conforming to D'Espine's sign, extending to the sixth thoracic vertebra. During the following 2 weeks the temperature rose to 102-103° in the evening and fell to 99° in the morning. Two days following the aspiration, all symptoms of respiratory distress disappeared. Another aspiration was attempted 16 days after the first, but no fluid was obtained. The reason for this second attempted aspiration was on account of the persistence of late afternoon temperature and a *status quo* of the physical signs—confirmed by the sequence of events and physical signs, at the present time, which is 2 months after the onset of illness; he is gaining in weight consistently, but gradually, is feeling well and now walks to and from the bath room, and to and from the open porch, where he spends about 5-6 hours daily. Temperature has been normal for about 1 week, and the last physical examination made a few days ago, showed a marked restriction in the motion of the right chest, up to the fourth interspace, with the left chest showing signs of a compensatory ephysema, with a resultant asymmetry of the chest wall, both anterior and posterior. Breath sounds are absent at the base and barely audible in the region of the fifth and sixth interspaces.

At no time has cough been present during the

entire course of illness. The administration of viosterol had a marked effect in stimulating appetite. I am of the opinion that the injury sustained prior to the onset of illness was the match that started a conflagration that might have had a fatal termination long before this; however, the ultimate outcome still remaining dubious, especially in the persistency of such a broad pathology in the right chest, which almost occupies the entire cavity.

Styles in infant feeding are comparable to the changing modes of fashion and the quest of the "Utopian" food still continues from corners of research over all the world. Most prominent in accepted usage at the present time are the acid milks, which undoubtedly embody certain attributes especially adapted for feeding certain types of infants. Acidification of milk, as stated by Mariott, one of the pioneers, evolving acid milks, leads to the neutralization of a portion of the buffer substances present, so that when the milk is fed the degree of acidity attained in the stomach approximates that when human milk is fed. This acidity is sufficient to inhibit bacterial growth, to favor normal functioning of the pyloric sphincter and to stimulate the flow of bile. An additional important effect of acidification is the precipitation of casein curds in finely divided form. These fine curds do not enmesh bacteria as do the larger ones, are more readily permeated by the digestive juices and leave the stomach more quickly than the large curds ordinarily found when sweet milk is fed. Acid milk is a poor culture medium for most bacteria, and formulas prepared from acid milk keep better than sweet milk formulas even though the milk be poorly refrigerated. Due to the high caloric content that may be used mixtures of this type are of especial value for the feeding of infants who have small gastric capacities and who vomit when large volumes of food are taken. Acid milk mixtures are also of value in treating undernourished infants having large food requirements and low digestive capacities. There is no objection to the continuation of feeding acid milk beyond the period of infancy. Of the various forms of acid milks, that soured with lactic acid has had the widest use. Buttermilk is essentially skimmed lactic acid milk and a by-product in the manufacturing of butter. It has been used for at least 150 years and probably longer. The other form of acid milk, other than the various lactic acid milks, is sweet milk acidified with lemon juice, orange juice, acetic acid, hydrochloric acid or citric acid. Acting upon the recent results obtained in the use of citric acid feeding in a series of cases, Citabs have been evolved by Squibbs, which are prepared from specially purified citric acid; 4 tablets are added to each pint of milk, thus producing 2.0 gm. of citric acid, the amount recommended by Gonce and Templeton, when whole milk is used. Citric acid milk made in this manner appears to possess certain advantages over the other acidified milk preparations. In the relatively short period of time it has been used in our pediatric department it was found that it is more quickly acceptable by the infant, it possesses ease and rapidity of preparation and a striking reduction both in the quantity and quality of vomiting spells.

The Pediatric Department, both out-patient and House Services, are continuing to grow with the passing of each year, and is instrumental in producing greater efficiency in our nurses, in the feeding and care of infants and children. Miss Seiders is especially to be commended for her conscientious, fruitful and coöperative supervision as well as the other floor nurses in charge.

It is highly important that strict isolation be maintained in those patients admitted with a cryptic source of temperature, and especially in the presence of catarrhal symptoms. I especially wish to extend my appreciative thanks to Miss McGurran and Miss Casperson for their concurrent efforts extended; to the various nurses who applied themselves so diligently, especially in difficult feeding cases; to the splendid and enthusiastic performance of duties by resident physicians McCain and Nickman; and last, and certainly not least, to the ready and courteous coöperation of the various constituents of other departments whose aid and advice are so essential on certain harassing occasions.

Dr. D. Ward Scanlan, Chief of Medical Service, presented a case of Traumatic Cerebral Pachymeningitis, with demonstration of the patient.

Dr. E. Harrison Nickman presented the following case of Streptococcic Meningitis Following Otitis Media. A schoolboy, 8 years of age, white, was admitted to the hospital service of Dr. Joseph H. Marcus June 1. Chief complaints were painful, running right ear and stiffness of the neck. He had had measles, mumps, chickenpox and whooping cough and a T-A several years prior to admission. There was no previous history of otitis media or mastoiditis. The family history is unimportant except for a recent mastoiditis and mastoidectomy in an older brother.

He last felt well on May 24. The same evening he complained of pain about the right ear. He was put to bed and warm oil was instilled into the ear. On the morning of May 26 a profuse purulent discharge came spontaneously from the right ear, but by evening the drainage had stopped completely, following which the temperature rose to 104.5°. During the succeeding 4 days there was little change in his condition. A paracentesis tympani was performed on May 31, and a small amount of blood-stained pus drained. After a poor night the boy was admitted.

Soon after admission the patient vomited in a projectile manner, repeating this several times during the first night. Throughout the second day he was quite restless and complained of headache. He was delirious and noisy, but at times was able to answer questions. Two lumbar punctures were done that day, a total of 45 c.c. of fluid being removed. The fluid of the second tap was thick, cloudy and flowed with difficulty through the needle. Antistreptococcic serum was administered intraspinally at the second puncture.

June 3 showed little change in the patient's condition except for an increase in the general rigidity and retraction of the head. He screamed with pain when touched. A poorly defined macular hemorrhagic eruption appeared on the neck and chest. Because of the stoppage of spinal drainage cysterna magna punctures were instituted. Fluid under marked pressure was withdrawn and Willard-Parker polyvalent antistreptococcic serum injected twice during the day.

Cultures of spinal fluid and blood made June 1 demonstrated nonhemolytic streptococci in pure culture.

Coma supervened on June 4 with thready pulse, rapid shallow respirations, tympanites and bowel and bladder incontinence. Antistreptococcic serum was administered twice during the day by cysterna.

On June 5 and 6, there was no change except for a gradual weakening of the patient's condition. Generalized rigidity was still quite marked; the cerebrospinal fluid was thick and purulent; serum was given by cysterna twice daily.

On June 7, the boy's condition was poor. Cysterna puncture yielded only a few drops of a thick jelly-like material. Serum was again injected. During the day temperature rose from 101.4° to 106.4°; pulse and respiration became progressively weaker and at 6.03 p. m., on the thirteenth day of the disease, the patient died.

This case, while not unusual in its general features, presents several points of interest. From the very outset the patient showed severe meningitic and constitutional symptoms which never abated throughout the entire course of the disease, lasting a period of 13 days. The duration, while not without parallel, is not frequently found in streptococcic meningitis when associated with such continued prostrating symptoms. Patients of this fulminating type usually succumb within a few days.

In purulent meningitis a hemorrhagic rash is not frequently found, although its presence in this instance may be accounted for by the associated streptococcic septicemia.

The case demonstrates also that while the classical neurologic signs of meningitis—Kernig, Brudzinski, contralateral sign, etc.—as a rule, are somewhat more pronounced in epidemic meningitis than in the other purulent forms, this rule has so many exceptions that it is unwise to rely upon it in making a differential diagnosis. A true diagnosis can be made only by the isolation from the cerebrospinal fluid of the organism producing the disease. The gross appearance of the fluid itself, however, often gives a hint of the organism present. Clear fluids are suggestive of tuberculous or serous meningitis. Cloudy or turbid fluids are suggestive of epidemic, staphylococcic, streptococcic, pneumococcic or influenzal meningitis.

The treatment of streptococcic meningitis is highly unsatisfactory, even if begun early; recovery is rare, a total of only 11 cases being reported in the literature. The general treatment, of course, is the same as that of any severe acute infection. For restlessness, bromides and chloral, or morphin and hyoscin seem to be very effective. Cardiac stimulation may be necessary. Authorities differ on the specific treatment. Recoveries are reported following the use of normal human serum, antimeningococcic serum, and polyvalent antistreptococcic serum or vaccine. Pregle's solution and optochin have also been used, but without demonstrable success. Methods of administration also differ: lumbar, laminectomy and permanent spinal drainage; lumbar and cysternal puncture; intravenous and intramuscular injections have been advocated, all with uniformly poor results.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

Two able addresses featured the July meeting of the Cumberland County Medical Society, which was held at Ivy Manor, Jericho, with Dr. Reba Lloyd as hostess. The spacious lawn and wide porches afforded a pleasant setting for the gathering. Many took advantage of the hospitality of Dr. Lloyd, there being a goodly number of members of the society, and also representatives of the medical profession from Philadelphia, Atlantic City, Trenton and Salem County.

Dr. Edwin H. Van Deusen, of Vineland, President, occupied the chair for the business session and the new constitution of the society was

adopted. Reports were presented by the delegates who attended the meeting of the State Medical Society held in Atlantic City in June.

Dr. George N. J. Sommer, State President, gave an informal talk, touching various phases of the society's welfare program. The members will soon receive a questionnaire as to the propriety of doctors employed by the state engaging in private practice. He spoke of the practice of insurance companies accepting risks without examination and, when the risks appear bad, checking up through hospitals and doctors who may have attended the patients, but without compensating them for this extra labor.

Dr. Paul Jepson, Philadelphia, who has done such extensive repair work for children under the auspices of the Crippled Kiddies' Committee of the Elks, gave a very interesting talk on "Anterior Poliomyelitis", from an orthopedic standpoint. The speaker described operations on the spine, hip, knee and ankle, for correction of deformities, and stated that repair work should not be done until all possible natural restoration of function has taken place.

Dr. Henry D. Jump, of Philadelphia, gave an enlightening paper on the "Use of Quinidin in Heart Disease". The drug is obtained from quinin, and its benefit in heart disease was discovered in the treatment of malaria. The drug meets the situation when other drugs fail, the speaker said, but its use should be carefully guarded by keeping the patient under competent supervision. It is best to use it separate from digitalis, since one acts on the sinusnode and the other on the bundle of His, and may thus interfere with the transmission of nerve influence.

The paper was discussed by Drs. Walt P. Conaway and Philip Marvel, Jr., of Atlantic City.

The usual annual picnic was not sanctioned.

Dinner was served in the large well-lighted dining room and the genial atmosphere prevailing caused the company to tarry long over the sumptuous meal.

HUNTERDON COUNTY

Barclay S. Fuhrmann, M.D., Reporter

Following luncheon the regular quarterly meeting of the county medical society was called to order by President Gramsch.

Dr. John Hagerty, of Newark, who is first vice-president of the state medical society, was introduced. His topic was "Medical Economics", stressing some of the reasons for high cost of medical care. He held that increasing costs in late years have been in a large measure due to an extravagant attitude on the part of many patients, who demand hospital care when in less serious cases they could be cared for at home. The accessories, he said, have been found to cost more than the actual medical attention patients receive. As a means of reducing the burden he suggested that people in cases where patients are in limited circumstances, help to contribute toward the hospital bill instead of showering the victim with flowers. In this way some of the worry of the patient would be relieved. Dr. Hagerty said that the time has come when the community should assume the cost of caring for the sick poor instead of depending upon the physicians and hospitals to render free service. By doing this better facilities could be provided by the hospitals, and physicians would be able to devote more time to such cases. Dr. Hagerty in

his address was careful to differentiate between care that is necessary for a patient and some of the garnishments which must be classed as luxuries.

His speech was discussed by Dr. G. N. J. Sommer, of Trenton, president of the state medical society. Those present at the meeting, besides those already mentioned, were Dr. B. S. Fuhrmann, secretary of the county society, and Drs. Fulper, of Hampton; Apgar, of Oldwick; Coleman, of Clinton; Thomas and Tompkins, of Flemington; McCorkle, of Ringoes; Boyer, of Annandale; F. G. Scammell, of Trenton; J. B. Morrison, of Newark, and Corbett McCarthy, a layman, of Newark.

MONMOUTH COUNTY

W. H. Von Oehsen, M.D., Reporter

The June meeting of the Monmouth County Medical Society was held at the Deal Golf Club, on Thursday, June 26, at 8.30 p. m.

No business was transacted except the election of Dr. Jacob Goldberg, of Long Branch, to membership. A dinner was served to the 35 members present, after which the society had the pleasure of listening to talks by the following guests: Dr. George N. J. Sommer, of Trenton, President of the Medical Society of New Jersey; Dr. Frederic J. Quigley, of Union City, Third Vice-President of the Medical Society of New Jersey; Dr. Charles B. Kelley, of Jersey City, Secretary of the State Board of Medical Examiners.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society, to which the members of the Warren and Sussex county societies were invited and attended, was held the late afternoon and evening of Wednesday, July 16, at Shannon Lodge in Bernardsville, on invitation of Medical Director John D. Currence, of that sanatorium for the treatment of chronic rheumatic diseases and arthritis.

That the invitation of Dr. Currence was most cordial and encompassed much to make anticipation soar to high elevations, may be gleaned from a brief extract: "Dinner will be served at 6.30, accompanied by an excellent entertainment. Before and after the dinner, there will be indoor and outdoor games, such as croquet, tennis, horse-shoe pitching, golf-net, ping-pong, bowling, archery, etc. A royal good time is assured. Come as early as possible and stay as late as you desire. Our Medical Staff will be available for inspection of our institution."

No anticipation was disappointed. Situated on a mountain eminence with spacious grounds, walks, rest nooks, beautifully laid out and with an unobstructed view of a vast valley area, Shannon Lodge to be appreciated must be seen. Arriving members of the various societies were met by Dr. Currence and his aides and a complete and very interesting inspection of the equipment and appointments was made. Time was most pleasantly spent before and after the formal meeting in the variety of games, those outdoors being electrically lighted to dispell the shades of the setting sun.

President Collins called the formal meeting to order on an ample porch of the annex and presided over a gathering of about 40 members and guests; included in the latter, Secretary J. Bennett Morrison, of the State Society.

Being presented, Medical Director Currence welcomed everybody most cordially.

The speaker of the day was Dr. Richard Kovacs, Clinical Professor of Physical Therapy of the New York Polyclinic, and Chairman of the Physical Therapy Committee of the New York State Society; his subject being "Physical Therapy in General Practice", with lantern slide illustrations.

Reviewing briefly the history of physiotherapy, the speaker reminded that it is as "old as the hills" and that in ancient history will be found many passages on massage, hot baths, etc.; that even animals extensively use physiotherapy, the dog licking a wound and the old mare running around to get the sunlight; and that these physical measures have been used for patients for a long time. He cautioned against the fake advertisers and ardent salesmen of equipment who purport to give instructions in its use, and mentioned advertising by radio which at present is not so strictly controlled as fake newspaper ads; that a great deal of abuse is going on right and left of physiotherapy; that it should be given under a physician's instructions with a careful application of the technic for the cases for which it is indicated and prescribed; that it should be prescribed with the idea of some definite reaction and describing and illustrating the various types; that every man practicing medicine should be able to use these physical energies and get certain definite results; that it takes time and thought, and that it is not a case simply of the snapping of fascinating sparks; that you have to select your patients and know what you are doing; that the physician can add very much to his armamentarium in the field of physiotherapy and diathermy; bespeaking interest and asking the physicians to read up on the subject; that it belongs to medicine and it behooves every practicing physician to know the possibilities of the subject; that it will work not only to the best interest of the medical profession but to the patients; and that it will do best in the hands of the competent physician who knows how; that its use for everything is simply repeating the early history of medicine and finally it will be evolved just where it belongs.

With a nice thought of the fitness of things, Dr. Kovacs stated that as he had commenced his address in the beautiful surroundings of Shannon Lodge he would close by showing slides of some of the well-known famous health resorts of Europe, where in this they are far ahead of this country, and stating that if there are developed more places like Shannon Lodge it will not be necessary to go to Europe.

The speaker having encouragingly invited questions on any angle of his specialty, responding to the invitation were Drs. Julia Mutchler, Lathrope, Meigh, Rubin and Curry.

It was the consensus of those present that Dr. Kovacs gave an extremely enlightening talk and that it was encouraging to hear all that is being done in a rational manner along this line; that physiotherapy is a tremendous specialty and needs a tremendous amount of study for anyone going to apply it as presented by Dr. Kovacs.

Medical Director Currence exhibited 2 patients, one, a man who, when he came to Shannon Lodge, could not even move in bed; under treatment, he is now going around with 2 canes and, as the patient said the other day, he got about for a while without any; the other, a lady, who had come from Brooklyn in an ambulance, unable to move, and who had been put on her feet and was present as a visitor, able to go about as usual.

A splendid dinner was served and a most enjoyable entertainment given by personalities of

the air who have been heard over the radio as the "Gold Dust Twins", the "Laddie Boys", etc.

During the program State Secretary Morrison spoke briefly, owing to lack of time, stating that he was delighted to be present and have the opportunity of listening to such an unusual paper; that he should be glad to have the paper with some variations reproduced at the annual meeting of the state society next year; and impressing the men that if they wish to pursue this treatment it will need a persistent course of study; that some other time he would take up some state society matters.

In behalf of the county society members, President Collins expressed high appreciation to Dr. Currence and his associates for the opportunity afforded of coming to Shannon Lodge and expressed the sentiment of all that we are fortunate in having such a place in our locality. A cordial invitation was extended by Dr. Currence for everybody to return at any time and enjoy the facilities of the place.

The attractions of Shannon Lodge, not the least of which is the personality of its Medical Director, Dr. Currence, and the entertainment and a professional program, easily combine to make this an outstanding meeting of the year.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

A quarterly meeting was held at Bonnie Burn Sanitarium, Scotch Plains, on the afternoon of July 9. Dr. H. H. Bowles, of Summit, presided over the well attended session. One of our members, Dr. Watson B. Morris, of Springfield, is a member of the Board of Managers of the Sanitarium and in a felicitous address extended a hearty welcome and told much of interest about this model institution.

Reading of the minutes was followed by election of a nominating committee consisting of Drs. N. W. Currie, of Plainfield; C. H. Schlichter and J. S. Green, of Elizabeth. Dr. Schlichter announced the finding of an old book containing the Constitution and By-Laws, with the signatures of many of the original members of the society. Lost for about 20 years, the book was recently discovered in the archives of the Union County Historical Society, and is being graciously returned to us.

Newly elected members were: Drs. Marian Louise Thomas and F. R. Stewart, of Summit; Anthony R. Comunale, of Rahway. Several proposals for membership were referred for action at the next meeting.

Dr. Elmer P. Weigel, of Plainfield, gave an interesting and instructive clinical lecture on "Operative Treatment in Cases of Bone Tuberculosis", illustrated by x-ray pictures and presentation of a number of cured or convalescent patients. He said that 85% of bone tuberculosis occurs in children under 10 years of age, but that due to improvement in our milk supply, more generally disseminated knowledge of hygiene, sanitation and better standards of living, we are seeing much less of the disease than formerly; 25 years ago at our large metropolitan clinics, every fourth patient presented some form of bone tuberculosis. Now, the ratio is about 1:20 patients. In the general discussion that followed, Dr. J. R. Runnells, Superintendent of Bonnie Burn, spoke of the medical features of the work done here.

Recording Secretary Dr. J. B. Morrison, an ever-welcome guest, entertained us with a lucid

account of the splendid work being conducted by the State Society, awarding a deserved meed of praise to the fruitful efforts of Mrs. Ethel C. Taneyhill and Dr. Henry O. Reik. Last, but not least, an old-fashioned clam bake, held in a nearby grove, contributed much to the success and enjoyment of our mid-summer meeting.

Obituaries

HEDGES, Ellis Walton, of Plainfield, one of the oldest practicing physicians in Plainfield, died at his home, 703 Watchung Avenue, after a heart attack. He was 71 years old.

Dr. Hedges was born in Chester, N. J., September 10, 1859, the son of Dr. Smith English Hedges and Anne E. Van Doren Hedges. He was graduated from Princeton in 1880 and received his master's degree there, after which he was graduated, in 1883, from the University of Pennsylvania Medical School.

He was associated with hospitals in Detroit and Philadelphia before becoming a consulting surgeon at Muhlenberg Hospital in Plainfield.

Dr. Hedges was a member of the New York Academy of Medicine, the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, the Presbyterian Church and Plainfield Country Club.

Surviving are his wife, 2 daughters, Mrs. Cleland Ross, of Rochester, and Mrs. Edward H. Denen, of New York, a son, E. Walton Hedges, of California; his brother, Dr. B. Van D. Hedges, with whom he was associated in practice, and a nephew, B. Van Doren Hedges, Jr., who represented Princeton in the Olympic games of 1928 and won the high jump.

A special meeting of the Union County Medical Society, held July 22, 1930, to take action on the death of Ellis W. Hedges, M.D., was presided over by Dr. James S. Green.

The following motion was adopted: That a committee be appointed to draw up resolutions on the death of Ellis W. Hedges, M.D., to be spread on the minutes of the society and a copy sent to the family. The committee offered the following resolutions which were unanimously adopted:

The Union County Medical Society mourns the loss of one of its oldest and most highly esteemed members, Ellis Walton Hedges, M.D., of Plainfield, N. J., graduate of Princeton University, and the University of Pennsylvania Medical School; pioneer surgeon of Union County; leader in the profession; always in the van of progress; past president of this society and at the time of his death, a member of the Board of Censors.

As a Founder of Muhlenberg Hospital and continuously active in its progress, Dr. Ellis W. Hedges will always hold a commanding position in the medical traditions of this part of the state because of the major and worthy part his work represents in the advancement of medicine and surgery, and the making available of hospital beds and nursing care.

Dr. Hedges had the utmost respect of his colleagues and in passing has left them a wonderful heritage.

The Union County Medical Society offers its sympathy to his family at this time of sorrow.

P. DuBois Bunting, M.D.

Milton A. Shangle, M.D.

Charles H. Schlichter, M.D.

Committee.

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PRESIDENTIAL ADDRESS*

ANDREW F. MCBRIDE, M.D.,
Paterson, N. J.

In exercising what is probably one of the greatest privileges that comes to the President of the Medical Society of New Jersey—that of addressing my colleagues of the entire state—I think I would perhaps do well to consider briefly the creation of the oldest State Medical Society in the United States. It appeals to me that it would be a wise thing if we pause to cogitate upon the motives which activated its inception, and whether our achievements suffer comparison with those of our illustrious forbears.

At the time of the formation of this society, in 1766, one hundred and sixty-four years ago, New Jersey, as you can well imagine, was very wild country. A province under the dominion of the British crown, it was settled principally about the outlet of its great rivers. Such being the case, the largest settlements were in the northern part of the state, about the Hudson, and in the southern part along the Delaware. The intervening country was sparsely settled, what population there was being distributed along the coast and near the Raritan.

As in any newly developed country, travel was very difficult. As yet even the stage coach was not in use. This, for the very good

reason that there were practically no roads. The physician traveled on horseback to minister to his patients. Just as in the rural sections of some parts of the West today, houses were separated by miles so that the average practice of a doctor was spread over a large area. To add to this difficulty there was no conception of antiseptics, anesthesia was unknown, and such conveniences in diagnoses as the pathologic laboratory and the x-ray were beyond the wildest flight of fancy. Besides these numerous troubles, the people were burdened with the usual run of fakers and quacks. Harassed by these difficulties, a number of physicians decided that by banding together some difficulties would be obviated and their knowledge increased to such an extent that it would prove advantageous to themselves and to the state. Their purpose in forming this Society is well-expressed in the notice of their intention, which was published in a New York newspaper of that period: "A considerable number of the practitioners of physic and surgery in East New Jersey having agreed to form a society for their mutual improvement, the advancement of the profession and promotion of the public good, and desirous of extending as much as possible the usefulness of their scheme, and of cultivating the utmost harmony and friendship with their brethren, hereby request and invite every gentleman of the profession in the province that may approve of their design, to attend their first meeting, which will be held at Mr. Duff's, in the city of New Brunswick, on Wednesday, the twenty-third of July, at which time and place the Constitution and regulations of the

(*Delivered at the 164th Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 12, 1930.)

Society are to be settled and subscribed." (East New Jersey, June 27, 1766.)

As a result of this decision, a large number of the most able and outstanding physicians formed "The New Jersey Medical Society" on July 23, 1766. The constitution which was then drawn up is too lengthy to quote in full at this time. Nevertheless, it was set down with a perspicacity and foresight that will ever be a tribute to their wisdom and vision. They anticipated, in part at least, much that was to follow. The basis of their plan was to work in harmony with each other for the benefit of the people of the state, agreeing that in this manner their knowledge could be increased, their welfare improved, and the public health preserved.

I feel that it would be impossible for anyone to doubt for a moment the integrity, the earnestness, and the moral fortitude of these men. Reflect for a moment how much this Society must have meant to them. The almost impossible task of organizing this group under such adverse conditions must have tried even their steadfastness not a little. Consider, however, of what infinite value these wise men must have deemed such an association would mean to themselves and the state.

My purpose in calling this monumental achievement to your attention is to better enable you to pass judgment on our endeavors. I want you to realize that men of their caliber could set only the highest of standards, and that if we are to continue to live up to these ideals it can only be through honest and industrious effort. In reviewing some of the more important problems with which we have been confronted in past years, during the year of my incumbency, and with which we will be confronted in future years, I wish to express some of my personal convictions, in the hope that if not the means of initiating action they will at least stimulate discussion.

COUNTY SOCIETIES

It is with a very definite feeling of pleasure that I review the activities of this Society during the past year. It was my privilege during that time to attend at least 1 meeting of each of the 21 county societies. It has been a

source of infinite satisfaction to me to find that most of these meetings were characterized by a real and intense interest. The affairs of the state society and the problems confronting it were topics which engrossed the minds of the physicians attending these meetings. Discussions of disease in its various forms were held. Presentations of interesting cases were made with instructive lantern slides of the gross and microscopic pathologic lesions involved. Campaigns for education of the laity in matters of personal and public health were instituted. Advocacy of intelligent and general use of preventive medicine was manifested in the organization of county drives against diphtheria. A growing consciousness of the need for protection of the rights of the physician and the health of the public against the influx of quacks and charlatans was evident. In brief, a general trend toward the raising of standards of the profession by improvement of the individual and members of the county societies prevailed.

The fact that these meetings were well-attended served to convince me that this spirit was not due to the feverish activities of a few of the more energetic members, but rather to the whole-hearted interest of a large number of the men in each county. Let me urge you that this willingness to participate in the affairs of your county society should become even stronger. It seems rather trite to tell you that *you cannot become too interested* in matters which are intrinsically bound up with your life work, but experience has taught me that laxity in affairs such as these is most detrimental to the morale of the physician. The continued interest, however, of the members of the county societies in matters of local and state welfare must inevitably be retroactive and result in a greater and better state medical society.

During the year it was my proud privilege to attend the One-hundredth Anniversary of the Sussex County Medical Society, as well as the Fiftieth Anniversary of both the Atlantic County Medical Society and of the Salem County Medical Society. I also had the honor of attending the annual meeting of the Ocean County Medical Society, which

served in addition to celebrate the Fiftieth Anniversary of Dr. Disbrow as a member of the profession. I attended with pleasure the Twenty-Fifth Anniversary of the Summit Medical Society, and I was the luncheon and dinner guest at many of the county society meetings. I was accompanied on most of these occasions by Dr. J. Bennett Morrison whom I want to commend for his tireless and incessant labor on behalf of the Medical Society of New Jersey. It is my opinion that his constant efforts have done as much for advancement of the society as those of any other individual in its history.

My memories of what has transpired during the year are, unfortunately, not all pleasant. The death of Dr. Charles D. Bennett, the very able Chairman of the Publication Committee, is a loss from which the Society will not soon recover. He was kindly, courtly, and dignified and was beloved by everyone.

LICENSING OF PHYSICIANS

The medical profession, as a whole, has been endeavoring from time immemorial to protect the lives and health of mankind. At no time in the career of this profession have its members been at all hesitant to make use of any new method of treatment, once convinced of its value. Never has there been an attempt to limit the number of physicians engaging in the healing art. Today, more than ever, we realize that there can never be a surfeit of competent physicians, if the work we are carrying on is to be accomplished. This attitude of the profession as a whole is identical with that of the Medical Society of New Jersey.

There are some things which the medical profession does object to, and its convictions in this regard will never allow of any compromise. The licensed physicians of this and every other state believe that cultists of inadequate training are not capable of safeguarding the health of the people. Furthermore, they feel that the requirements set forth by the American Medical Association are the only adequate requisites, which must be satisfied, to obtain a license for practice of the healing art. In this respect the making of

a physician is similar to the manufacture of a fine machine. Experience has taught that a great deal of time is required in the making of any machine if it is to be serviceable. It must be tested before it can be put into use. Finally, it is stamped with a name which stands for the quality of its products. The making of a physician is analogous to that process. The time spent in premedical and medical training may be compared with the making and assembling of the machine. Thoroughness of this procedure insures the quality and dependability of the physician. The time a man spends as an intern is similar to the testing of the machine. When he passes his State Board Examinations, a *trademark*, known for years to mean dependability, serviceability and compassion, is placed upon him. It is for a wise public to decide to "accept no substitute".

The requirements of which I have spoken are little enough considering the seriousness of the physician's task, yet there are cultists who claim, with an assurance that assails good judgment, that they are capable of doing the same work with training which is in no wise comparable to our own. I ask you, how can anyone treat disease if he is unable to diagnose, and how can any man diagnose when he has not been sufficiently trained and educated? Aside from the lack of training, by what right can a man practice the healing art even in a limited way, when he does not believe in certain indispensable knowledge?

It is the aim and desire of the Medical Society of New Jersey that no one be licensed to engage in the healing art unless he meets the requirements which have been proved adequate to determine his ability. If the cultist can prove that he possesses any medical knowledge the regular does not, I think this should be included in the training of the regular. All available knowledge should be used in performing our duty of preserving health, but no one should be allowed to treat disease without all this knowledge and, consequently, the training needed to obtain it. Knowing the difficulties a young man of poorer circumstances has in meeting these requirements, I believe that a law might well be passed that

would enable the state to help furnish medical education to all young men who have met certain fundamental requirements and have proved worthy of such aid.

WELFARE COMMITTEE

I wish to commend the members of the Welfare Committee for their wise selection of Dr. A. Haines Lippincott as Chairman. Dr. Lippincott, active as a member of the committee for many years, has made a very able chairman this year. The Society owes all the members of this committee a deep debt of gratitude for the way they have favored judicious legislation and opposed legislation considered unwise. They have discharged their duties to the Society and the public admirably well.

STATE BOARD OF MEDICAL EXAMINERS

I want to congratulate the State Board of Medical Examiners upon the manner in which it has coöperated with the state society during the past year, in the endeavors to protect the public, and for the fair, impartial, and successful manner in which its members discharged their duties. Dr. Diverty's re-appointment to the Board of Medical Examiners was in recognition, I am sure, of his fine constructive work during his preceding term. Dr. Charles B. Kelley, Secretary of the Board, has been untiring in his efforts to carry out in the best way possible his duties to the state.

THE COST OF MEDICAL CARE

Members of our profession have been subjected to very sharp criticism on the ground that the cost of medical care has become prohibitive. The brunt of this criticism is directed chiefly against the high cost of extras and the physician's fee. I am particularly interested in this phase of medical life and have given it considerable thought. My conclusion has been that, while some of the criticism is unjustified, we should seek to remedy such of our actions as are deserving of criticism. That the cost of medical care has increased is admitted. However, there is much to be said in defense of the advance of prices. The general cost of living has increased and it is necessary for the physician to adjust his prices

to the changing economic scale. The length of time necessary for medical education is longer and the cost greater, with the result that financially the prospective medico is a greater liability to himself and his family and for a longer time. The socially competitive spirit has permeated even into the hospital and, consequently, the patient demands every possible adjunct and extra even though unnecessary. These reasons for the increased cost are more or less beyond the physician's control. It is unfortunate, particularly if they occur in a time of financial stress, and can only be coped with by coöperation on the part of both physicians and patients.

The failure of some physicians to take account of the economic status of the families under their care offers the chief means for our critics to attack us. Some physicians sanction the expenditure of money that will in no way help the patient. The same type of man is often guilty of making a charge, for his services, which is beyond the patient's means. It is my custom, and I feel that it should be universally adopted by every member of the society, to apprise the family of exactly what is needed in each case. I know of many families that have been left without means, practically because they have dissipated their life's savings in an endeavor to do everything possible for loved ones overcome by illness. If the physician had pointed out to both patient and family the futility of spending this money without any justification whatsoever, much embarrassment and suffering could have been prevented. I realize the difficulties that may be encountered in many cases. However, I find myself able to treat patients successfully, and with most peace of mind, if I follow my rule of "spare no expense for necessities, spare every expense for nonessentials".

Moreover, there are physicians and surgeons who uniformly charge fees that appear high. They feel justified in charging everyone they treat this regular fee, even though the patient or his family cannot afford it. I feel that it would be better if such physicians would refer such patients to competent physicians who do not value their services so highly and whom the patient and family could af-

ford. I feel that if care and precaution such as this be taken, then a great step forward will have been made and much of the complaint now directed against the hospital and doctor regarding the prohibitive cost of illness will disappear.

New Jersey is fortunate in the number and character of her hospitals, public, semipublic and charitable—they compare favorably with the best to be found anywhere. No person has to be without hospital care if in need of it, and that whether he can afford to pay for such care or not. Many, if not all, hospitals are left with a deficit annually which a generous public helps to defray.

I want at this time to express my appreciation to the members of the legislature, and to the Governor, for having passed and signed the law making hospital bills a lien on damages recovered in cases resulting from public accidents. This surely was but doing justice to those institutions that are so necessary and helpful to the unfortunate victims of such accidents.

I cannot leave the subject of hospitals and institutional care of the sick without bringing up the important question of the hospitalization of incurables. As I see it, incurables have no place in a general hospital, but should be cared for in an institution given over to the care of this class of cases exclusively—and I trust that ere long every large community in this state, and combinations of the smaller ones, will be in possession of institutions for the proper care of this large and helpless class of unfortunates. That there is an urgent need in this respect is evident to most physicians of the state and to many lay people.

STATE MEDICINE

There has been some talk in this and other states about state medicine. If this were adopted it would mean that the state would be divided into sections according to population and each section would be under the care of a group of physicians hired by the state at a fixed salary. The people who favor this plan advocate it on the ground that its advent would insure people of moderate means proper medical care at a more reasonable cost. Fortunately, these people are in the great min-

ority. The attitude of the majority is, happily, one that has been built up as a consequence of the harmonious relationship that has existed between the doctor and the public. I believe the people have found the family physician too satisfactory in time of trouble to risk losing his services. The faith they have in him is because of his humane characteristics. I am positive this faith could not endure if they felt that they were dealing with an automaton. Under a régime of state medicine, a physician would be nothing better than a cog in the wheels of government, and would have to subject his personality and ambition to its rules. The biblical dictum—"By their fruits ye shall know them", applies to the physician more, I think, than to the members of any other profession. Then, too, under state supervision all doctors would be placed upon the same level. If the patient felt his trust misplaced it would cost him doubly to secure the doctor of his choice.

I know the members of this society realize the devastating effect any such change would have on the morale of the profession. My personal experience has been that the number of people who come to me of their own volition provides the stimulus for endeavor to attain the highest pinnacles of success. If the physician is to exist as an employee, there will be no incentive to progress after he once qualifies for the position. The psychic income which he derives from his work plays too important a part to be neglected or entirely cut out, as it would be in state employment of physicians. Even now, I can visualize the evils which would result: Progress, if it may be called such, would result from political "pull". There would be a loss of ethics and a general tendency toward corruption of the ideals which have carried our profession to the prominent position it occupies today.

As I have repeatedly stated, during my visits to the various component societies, in discussing the possibility of state medicine, it is my opinion that such a state of affairs will never come about if the medical profession uses the proper precautions. I think the ways in which we should direct our efforts are

three-fold: first, we should be alert that no legislation be passed that is unfavorable to continuance of the existent concordant relationship; secondly, we should safe-guard the health of the people of the state against disease, and not suffer this work to be done by Boards of Health, Boards of Education and lay organizations except under our direction; thirdly, we should keep the cost of medical care within the reach of all the people, i.e., that people should not be forced by fees they cannot afford into clinics and wards of hospitals to accept charity when they are willing and desirous of paying fees within their means.

PREVENTIVE MEDICINE

The term "preventive medicine" is daily coming more into common usage. It is a comparatively new expression and represents the changing attitude of the medical profession toward the treatment of patients. It has been the aim of the medical profession from its beginning to discover means whereby disease could be prevented rather than to cure it after its occurrence. However, it is only recently, compared to the length of time that this matter has been deemed important, that the scope of our knowledge has permitted the formulation of practical and definite plans. The success that has been met with in this attempt to prevent disease, or its spread, has certainly warranted the effort put forth, but I think that a redoubling of our efforts will bring forth even greater results.

In its broader sense, the "prevention of disease" is brought about by (1) building up the human body to the peak of its possibilities, (2) by establishing through one means or another a greater resistance to disease, and (3) by removing as far as possible disease-causing factors. The importance of this phase of medicine cannot be too greatly stressed, for by it we advance toward the goal we seek. In the first place, we decrease the occurrence and the types of disease. Secondly, if the body is not weakened by the ravages of previous disease it is better equipped to combat the onset of senility. Thirdly, we preserve the condition of health and prolong life.

Preventive medicine in its more restricted

sense has been the means of blotting out diseases which formerly were the scourge of the world. Thousands of trained minds throughout the world are engaged daily in an endeavor to discover a positive check for other diseases, and notable progress is being made. It is now possible to prevent small-pox by vaccination, typhoid fever by inoculation, and diphtheria by immunization; by such means these diseases have been practically eradicated. I feel certain that the old saying—"an ounce of prevention is worth a pound of cure"—is evidenced by the remarkable results obtained through this mode of treatment. No physician is fair to his patients or himself if he does not employ preventive medicine. He should inform his patients of the importance of taking advantage of all known and approved measures for disease prevention. The physician in general practice should be prepared and willing to render this service at a fee within the means of his patients. That preventive medicine is going to continue to be more and more in demand is unquestionably true. An intelligent person does not want himself or any of his family, or friends, to be ill if it can be avoided, particularly if it can be proved that the measures employed to accomplish this are safe and within easy reach. The fight that is being waged to discover methods and means for the prevention of disease is bound to continue with increasing interest. Aided and abetted by the knowledge of the great accomplishments already made in this field, it behooves us that every member of the profession do all he can to keep abreast of the times in this important branch of our art. That much can be accomplished by the medical men of the state is shown by the recent antidiphtheria campaign whereby thousands upon thousands of school children have been immunized against diphtheria. That the incidence of this disease and the mortality resulting from it have been greatly reduced is evidence of the tremendous good that follows work of this kind. Much more, however, must be done in our campaign to entirely eradicate diphtheria from the list of diseases that now afflict the people of our state. This campaign should be carried further so that

in years to come children of pre-school age will all be immunized. If this precaution against diphtheria is taken at the age of 6 months, I am sure the infant mortality rate will be greatly decreased. The means of accomplishing disease prevention is through an intelligent, far-reaching, educational campaign. It is essential that any such dissemination of information reach the people to whom it is most necessary. This can be brought about by the use of widely diversified means. In this way the knowledge which is spread will come within the ken of everyone. The nature of this knowledge should be how to promote and maintain mental and physical hygiene in the individual. He should be taught the value of cleanliness as a means of disease prevention. The importance of preventing contagion by care in the sick-room should be impressed upon his mind. The primary symptoms of the more insidious diseases, such as tuberculosis and cancer, should be taught to him so that he may recognize these conditions himself or his family before the damage done is beyond repair. Above all, he must be instructed in the value of periodic health examinations. This must be done in such a way as to show him that *he* is the beneficiary, and not the *doctor*.

This educational campaign must be carried on by this society. Being the oldest state society in this country, it must set up a criterion for other state societies. I know of no better way in which it can do this than by extending of its influence where that of the individual physician cannot reach. I think that this drive against disease should be carried on in this state much as it has been in the past. Newspaper articles by competent physicians are of great value in this respect. The radio, because of its universality, can be turned into a powerful means of enlightening the public. Another way, which has been used with great success by such organizations as the Anti-tuberculosis League, is by posting bills upon sign-boards. The particular advantage of this plan is the fact that it is constantly before the public eye; the radio can be turned off, the health column in the newspaper can be disregarded, but the poster is always before the

public eye to impress its message upon the mind consciously or subconsciously.

However, I cannot help but realize that if we are to carry any such project as I have outlined with the success we should expect there are certain vital and imperative requirements that must be met. For example, the society has no home in which its records may be kept or its business transacted. This fact has been a drawback in much of our work in the past and it is going to prove a limiting factor in the future in any such movement as a state-wide campaign against disease. It is only too apparent how much more success would be ours if the impetus behind our efforts were centralized. It would facilitate the work of our committees in such an undertaking to have rooms set aside for necessary meetings. It would mean a great deal to them also to be in the same building as their mouth-piece, The Journal of the Medical Society of New Jersey, because they would be in a better position to inform their brethren of their doings and so to sustain interest in the project.

As I visualize this question of preventive medicine and how we can best aid its progress, I am reminded of another great obstacle which must be overcome before we can attain satisfactory results, that is, lack of funds. The society in its endeavor to educate the people in the importance of health matters has had in the field a very efficient and highly trained assistant to Dr. Reik, Mrs. Taneyhill, who has talked and lectured to thousands of people in the state and has, in my opinion, accomplished much that has been beneficial to the people. That much more can and should be done is my conviction, but of course the society is limited because of lack of funds. Much money has been contributed in the past by public-spirited men and women in New Jersey and elsewhere in humane causes such as this. It appears to me that there must be some individual or individuals who would be willing to subscribe a sufficient sum of money to enable the society to erect a modest home and to finance a campaign in public health matters over a period of years. Dr. Reik, our efficient Executive Secretary and the Editor of the Journal, has given this matter a great

deal of consideration. He, perhaps, appreciates the need of the things I have recommended better than any other physician in New Jersey because of the very important part that he has taken in the activities I have outlined.

PUBLIC HEALTH WORK

The importance of public health work cannot be emphasized too much. The emphasis it has received is manifested in the measures people now take to avoid disease. They are beginning, at least, to be disease-conscious and are taking measures of avoidance. If we but witness the desire of the most humble and lowly to secure better quarters in which to live, we can be assured of this. They are no longer satisfied to depend upon homes that are unprovided with sanitary conditions. They have become fastidious in the matter of diet. An appreciation of the benefits of a well-balanced food supply has entered most every household. The knowledge they have gained has made them demand legislation for protection in these matters. Canneries, factories and farms are subject to regulation by such bodies as the Pure Food Commission; Health Inspectors decide the fitness of dairy cows and milk. In the matter of disease, superstition is giving way to the dawn of an intelligent understanding. Proper precautions are taken in the sick-room to safeguard those coming in contact with the victims of disease. Tuberculous patients are being treated in sanitariums devoted entirely to that purpose. Isolation hospitals prevent the spread of epidemic disease. In short, the realization is becoming widespread, and the public is learning that in matters of disease, as well as in other things, an act of carelessness may be followed by "an act of God". My point in speaking of this matter is to emphasize what I said earlier in this address about education. I feel that this improvement in public health matters is the fruit of earlier efforts along this line. All progress is due to enlightenment of the mind by education; education can only be secured by work on the part of some one. I feel that this work became ours the instant we set out upon a medical career.

POST-GRADUATE MEDICAL EXTENSION COURSES

For a number of years past, in common with many other states, New Jersey has recognized the necessity for regular post-graduate medical instruction. It was thoroughly discussed by almost every county society. Committees were appointed to study the feasibility and practicality of offering such courses to the physicians of the state. This year a very competent committee, headed by Dr. Samuel Cosgrove, of Jersey City, actually began the provision of such post-graduate medical instruction through being able to enlist the coöperation of Rutgers University. This aid was generously and unstintingly given, and I am happy to report that more than 400 physicians have participated in these courses. Universal commendation and generous endorsement have been given the very excellent teaching corps by everyone who has been fortunate enough to attend these lectures and demonstrations. I feel that the inauguration of this custom of giving post-graduate instruction throughout the state is a very great achievement to the credit of the state medical society. As you all know, the science of medicine has progressed with astounding rapidity in comparatively recent years. This amazing progress prognosticates a proportionately larger change in the next few decades. It is essential that the doctor keep abreast of the times. This could become a serious problem in our state, particularly as we are hampered by the lack of a medical school, a fact that, although of no particular moment to those of us situated near New York or Philadelphia, has its serious aspects in the more isolated communities. However, I think it will be unnecessary now for any physician to feel that his methods are archaic or that he himself is antiquated. An active county society, a well-written Journal, and the post-graduate courses to which he may resort, make it possible to keep in step with the progress of the profession.

I wish at this time to express my sincere appreciation to Dr. Thomas, President of Rutgers University, and Professors Miller and Chaffee, and the other splendid gentlemen who

gave so generously of their ability and time and who worked so tirelessly in their endeavor to form classes all over the state. I also wish to thank every member of the Post-Graduate Medical Extension Course Committee, without whom this admirable work would never have been perfected. They have performed a great service to the profession and to the society. I feel certain that appreciation will find its expression in the greatly augmented numbers of members desiring to attend these lectures next year. I also feel certain that the willingness of more than 400 physicians to devote the time and money necessary to take the course this year is indicative of the desire of the doctors of this state to acquaint themselves with the most modern methods of treatment.

TRISTATE MEDICAL CONFERENCE

The custom of having 3 meetings a year of executives of the state societies of New York, New Jersey and Pennsylvania has just passed its fifth year. I attended all 3 of these conferences during the past year and was very much impressed by the possibilities which these gatherings have of being helpful to all 3 states. They offer assurance of fortifying our future plans with triple the past experience. The proximity of these states, one to another, means that their problems are similar if not the same. Isolation in spite of contiguity has meant that the same problems have been met in somewhat different ways, with varying degrees of success in past years. The papers that were read and the discussions that ensued brought to light the best methods of the past and the most practical plans for the future. The matter of legislation has been brought up time and again with the aim of acting together for a common end. I am sure the conferences of the future will multiply the advantages of those gone by.

CONCLUSION

It is impossible to express fully what the past year has meant to me. My numerous duties and great responsibilities as President have been lightened by the whole-hearted cooperation of my fellow-officers. I hope that I have expressed my appreciation of the great

honor conferred on me by living up to the expectations of the members of the society. I should like to feel that I have in some manner evidenced my appreciation of the fine and glorious ideals of this *first of America's State Medical Societies*.

I would like to thank the members of all the committees for their splendid work. I want especially to thank Drs. Martin W. Reddan and William D. Olmstead, of the Program Committee, whose planning and arranging of events have been, in a large measure, responsible for the success of this convention. I want to extend my congratulations to the Society upon the excellent choice for incoming President, Dr. George N. J. Sommer, of Trenton. Dr. Sommer has my very best wishes for a successful and active term of office. His is a rare privilege, and a privilege to which all of the Society's members must aspire. We are justly proud to feel that we shall be inspired by Dr. Sommer's competent and courageous leadership.

In conclusion, may I say that I trust this address may be the means of stimulating a renewed interest in Public Health questions and that we, as a whole, may head in every such movement. There is every reason why we should. If we do, I feel certain that we will have the whole-hearted support of an intelligent public and find that our labors are appreciated. It will, I am sure, be but carrying out the principles and ideals of that band of heroic and noble pioneers who organized this Society 164 years ago.

NON-BASAL PLEURAL EFFUSIONS IN ARTIFICIAL PNEUMOTHORAX

FEIVEL O. SLAVUTSKY, M.D.,

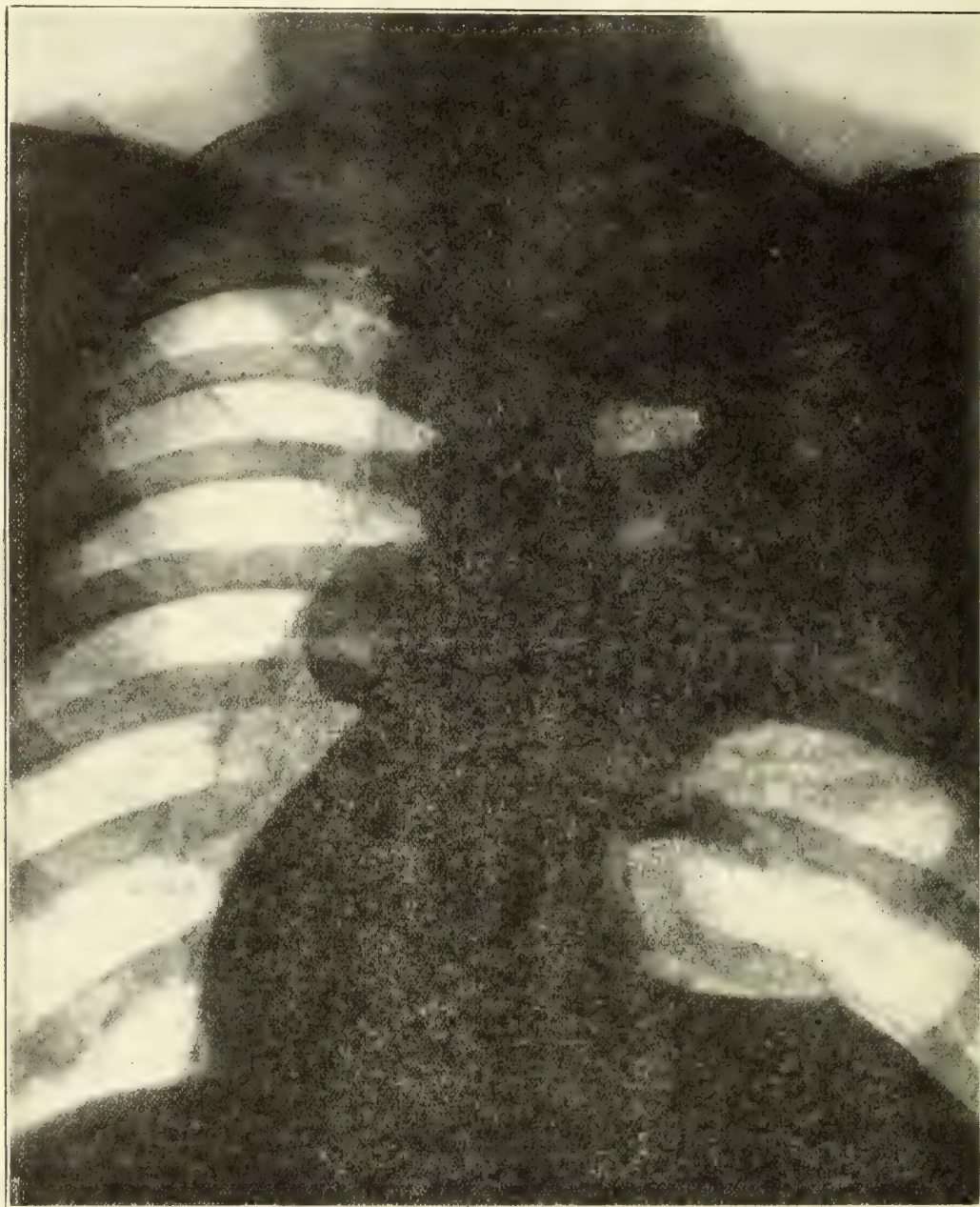
New Jersey State Sanatorium

Glen Gardner, N. J.

In the management of pleural effusions complicating artificial pneumothorax the possibility of an atypical distribution of fluid must be borne in mind. Shape and location of the effusion depend upon the nature of the adhesions, by which the fluid may be molded

in the most bizarre forms. There is, however, one topographic feature common to all effusions in artificial pneumothorax—the horizontal level of the fluid, as seen on the roent-

The most frequent variety is the typical basal effusion which begins at the costophrenic sinus and rises to higher levels from the base of the treated pleural cavity. Only rarely



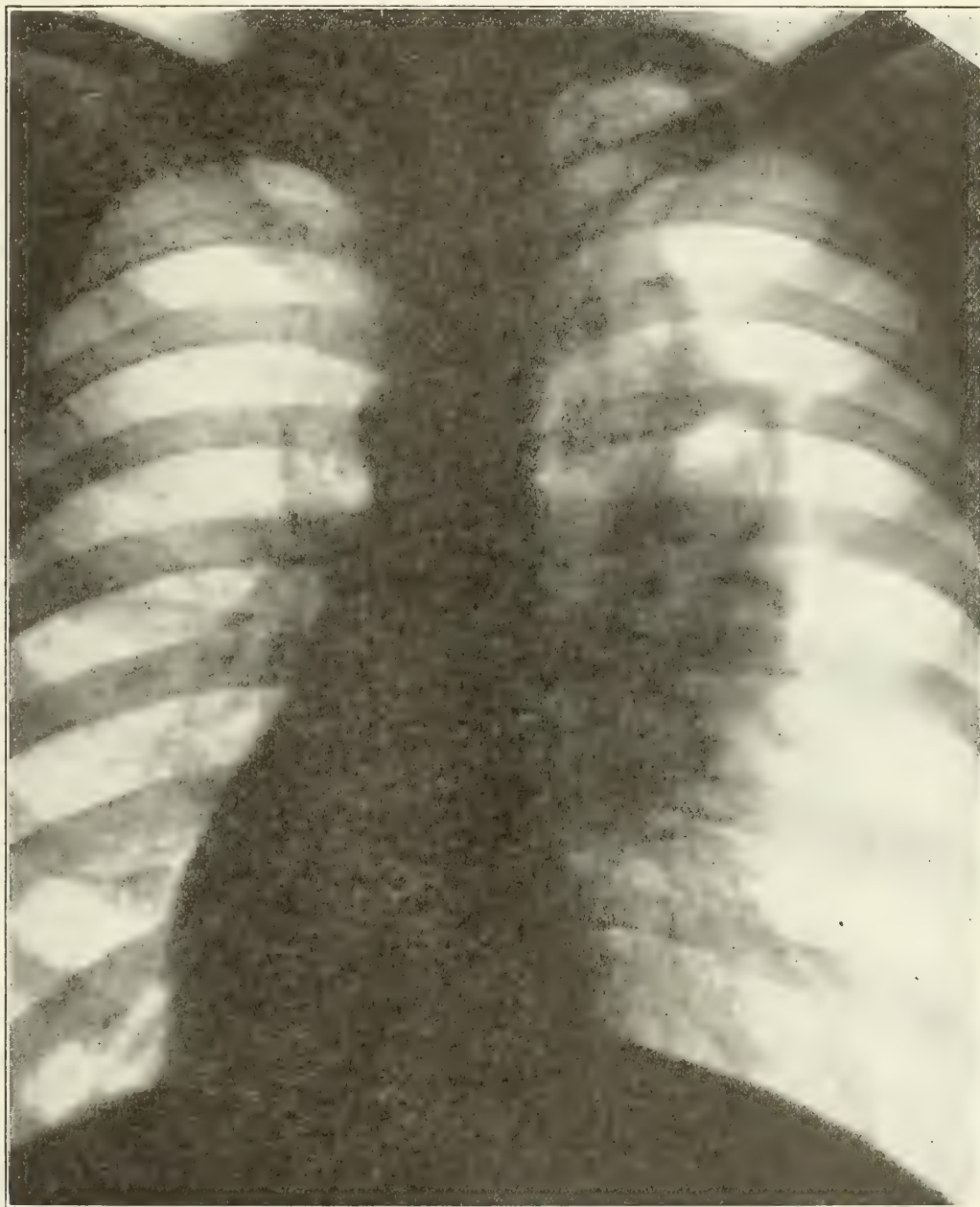
Case 1, plate 1, June 25, 1928, shows dense tuberculous infiltration of entire right lung, bands of adhesions and cavitary shadows in the right upper, and mild involvement of the left.

genogram or fluoroscopic screen. This horizontal line between the fluid and the gas discloses all possible effusions, no matter how hidden they are to physical examination.

does the effusion uniformly surround the treated lung. In many cases the fluid is crowded toward the chest wall in one or another direction by noncompressed lung tis-

sue. Bands of adhesions may bisect the original basal effusion and give rise to secondary non-basal collections of fluid. The parent ef-

which primarily form at levels other than the base of the pleural cavity. This report reproduces 2 primary, atypically seated effu-



Case 1, plate 2, August 4 1928, shows a partial uniform compression of the right lung, cavitory shadows in the upper two-thirds, and adhesions traversing the upper half of the pneumothorax cavity.

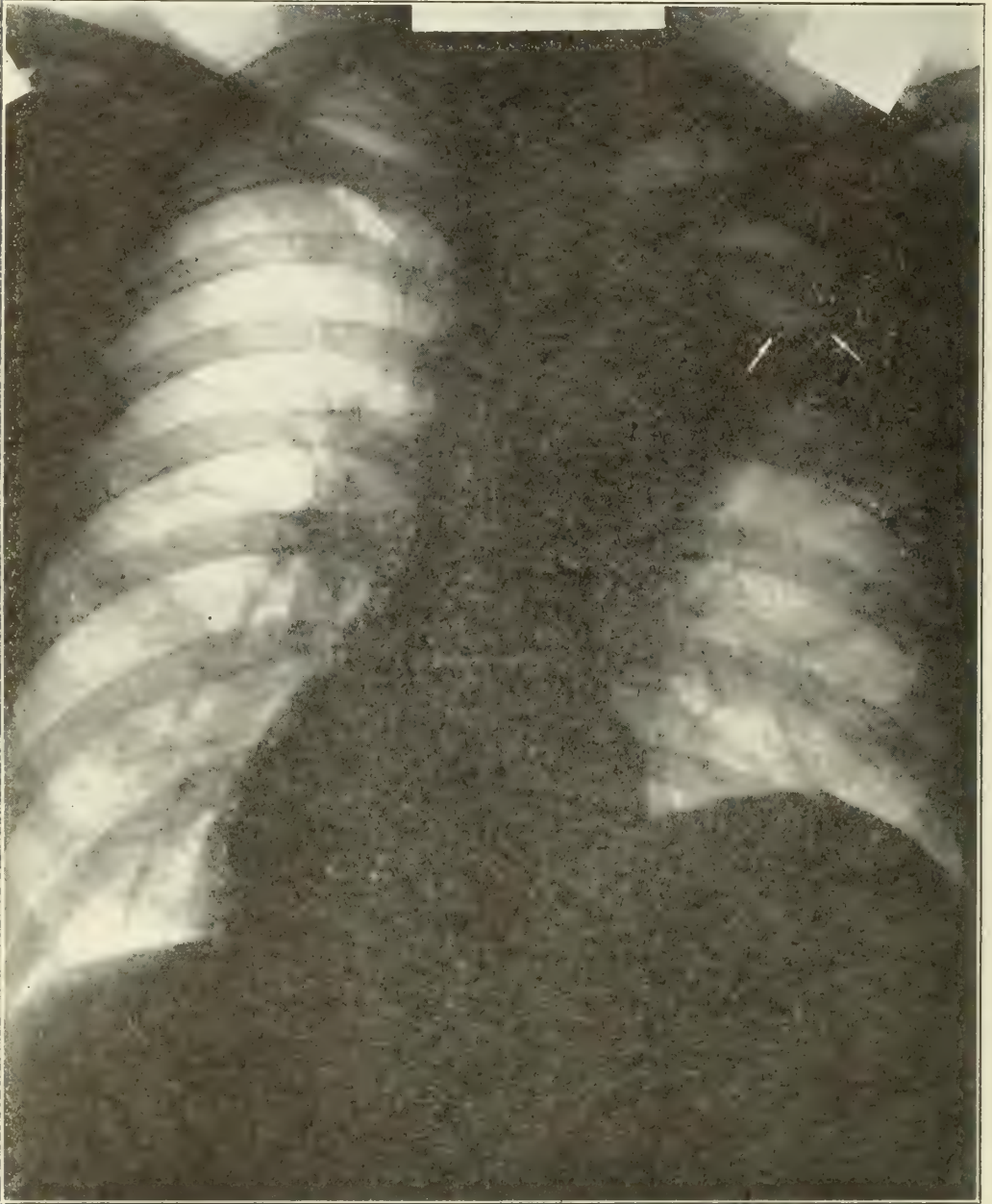
fusion may clear up through absorption, while lesions, as they appeared in the course of artificial pneumothorax therapy. the branched off tributary portions remain intact.

Quite uncommon are the pleural effusions which primarily form at levels other than the base of the pleural cavity. This report reproduces 2 primary, atypically seated effu-

Case 1. J. C., male, aged 27, under pneumothorax treatment since July, 1928. Plate 1

shows the condition of his lungs on admission; an extensive tuberculous infiltration and cavitation of the right lung and a mild involve-

traversed by large bands of adhesions. In September 1929, the treated lung, partly re-expanded, became adherent to the chest wall,



Case 1, plate 3, January 28, 1930, shows an air pocket within the upper-third of the right pleural space, and an effusion at the base of this pocket. Right diaphragm is in a paralytic state. Note remarkable healing of the right lung with disappearance of the cavitory shadows.

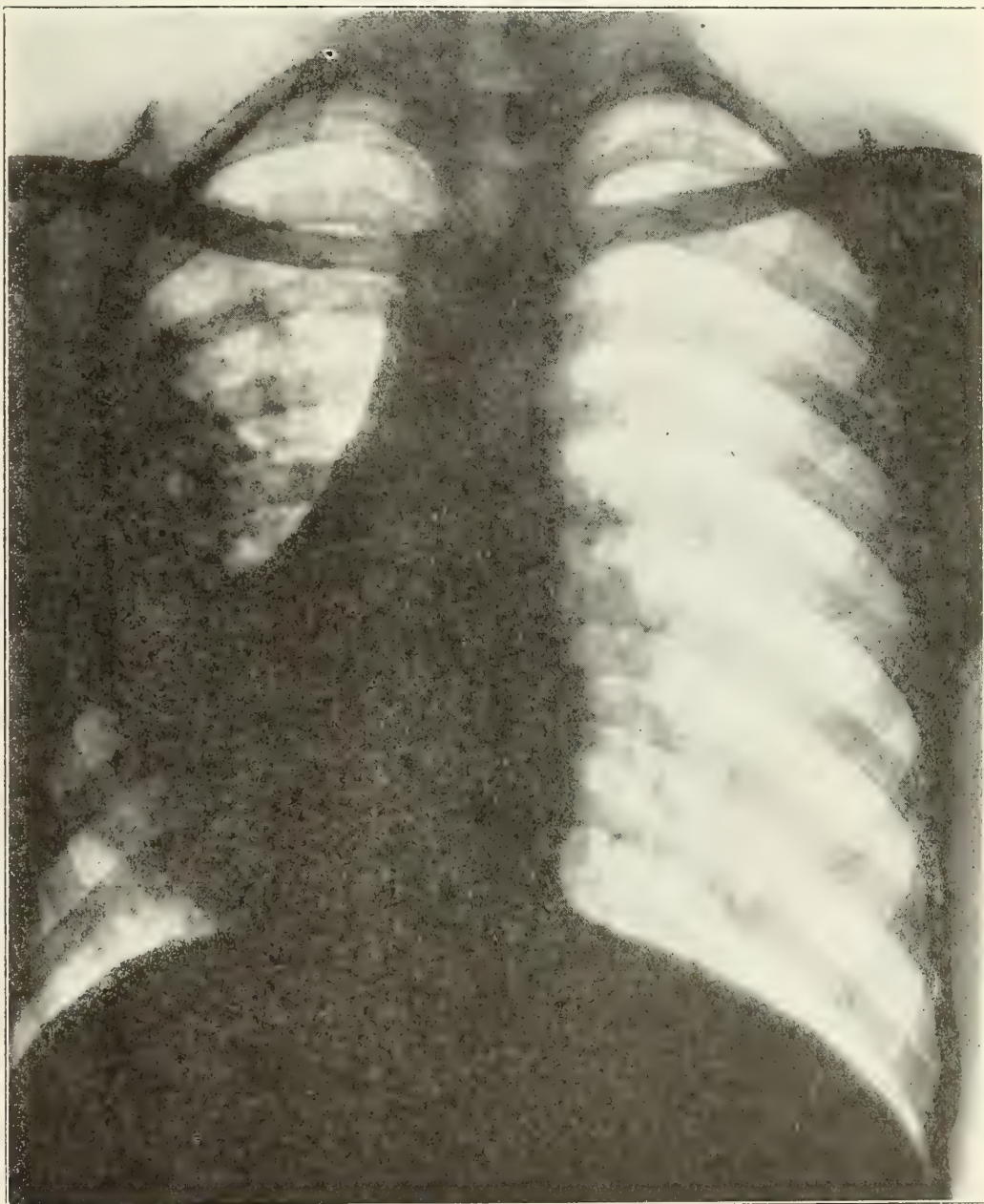
ment of the left. Plate 2 shows uniform compression of the entire right lung with multiple accentuated cavitory shadows in the upper two-thirds, the pneumothorax cavity being

and the pneumothorax cavity began to obliterate rapidly. The refills are continued in the obliterating air pocket. During the whole period of the pneumothorax treatments no ef-

fusion was revealed. In January 1930, the patient had a right-sided phrenic evulsion. Plate 3, taken after the operation, shows an

pleural cavity. The right diaphragm is in a paralytic state.

Case 2. H. S., male, aged 23, under pneu-



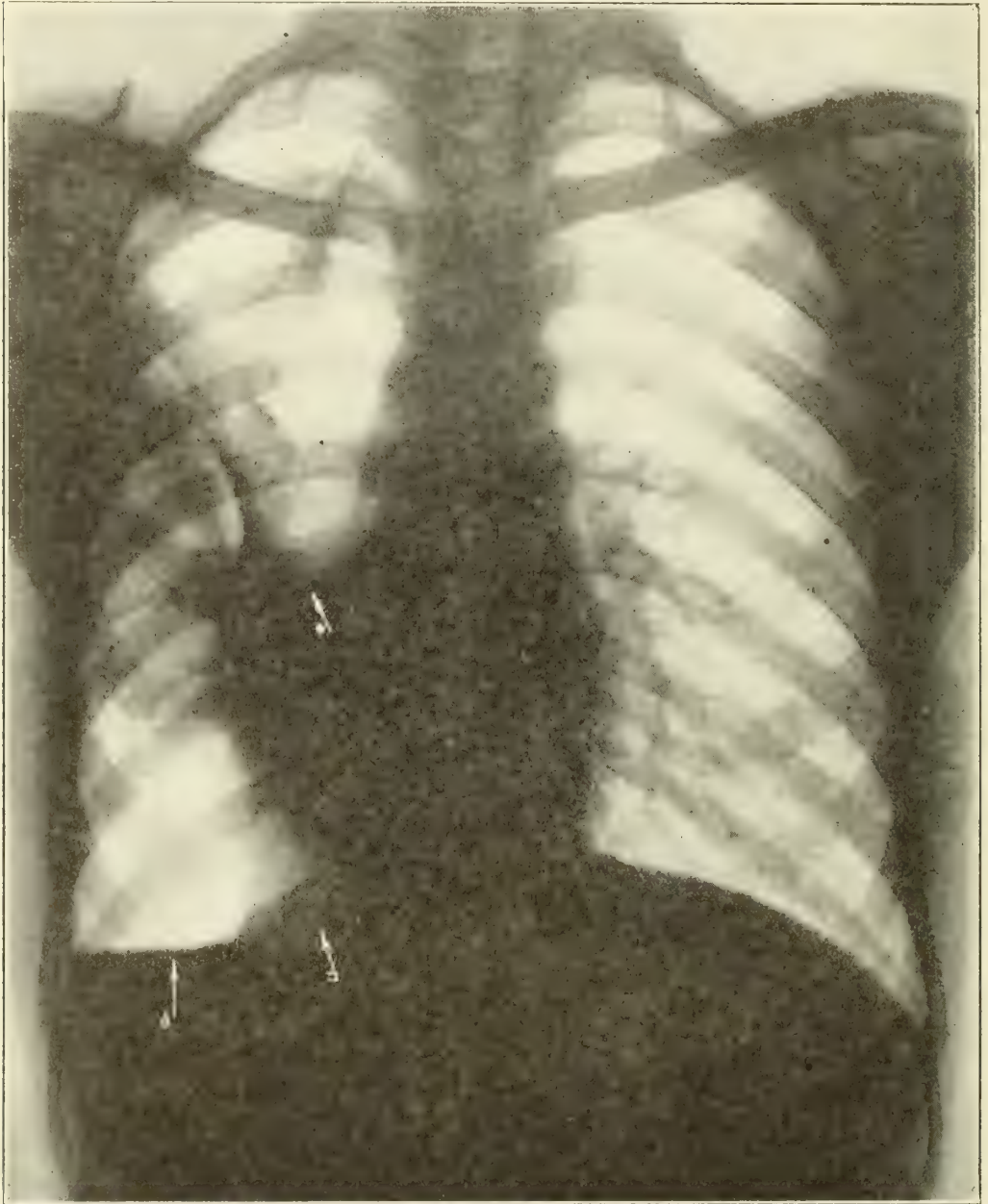
Case 2, plate 1, August 13, 1929, shows extensive tuberculous infiltration of the left lung with wide pleuropericardial adhesions. Right lung apparently negative.

air pocket within the upper-third of the right pleural sac. A minimal effusion at the base of the pocket is supported by adherent lung. There is no evidence of fluid in the general

mothorax treatment since November 1929. On admission there was an extensive tuberculous infiltration of the entire left lung with broad pleuropericardial adhesions, as shown

on plate 1. Plate 2 shows a unique combination of a primary walled-off mediastinal effusion and free primary basal effusion. There

served between them. The mediastinal effusion overshadows the outlines of the heart, being retained between the mediastinum and



Case 2, plate 2, March 6, 1930, shows horizontal fluid level of the mediastinal effusion (arrow "a"), horizontal fluid level of basal effusion (arrow "b"), air filled pleural space between both effusions (arrow "c"). Note multiple large adhesions within the general pneumothorax cavity.

are 2 superimposed fluid levels, each supported by a different flooring. Each effusion had formed independently; no continuity was ob-

compressed lung tissue by adhesions. Air filled, pleural space is seen between the upper and lower horizontal fluid levels.

CONCLUSIONS

The topography of pleural effusions in artificial pneumothorax presents a great variety of features. Atypical varieties may be primary or tributary to basal effusions. In mapping out the limits of an effusion the radiograph and fluoroscopic findings are of the utmost importance. Some effusions are recognizable only radiographically.

**PRURITUS ANI; ITS CAUSE
AND CURE**

J. F. MONTAGUE, M.D.,
New York City

Of all conditions being brought to the medical practitioner there is probably none at the present time of which the treatment is still so empiric as is that of pruritus ani. While each succeeding decade has seen enormous progress in the understanding and relief of other diseases affecting the structures adjoining or directly connected with the perineum, for pruritus of that region little or nothing has been accomplished. There are even members of the medical profession—an impressive minority—who are unwilling to admit that such a disease entity exists, and to their number must be added those who have seriously considered the question yet remain in doubt as to whether pruritus ani is an actual pathologic phenomenon or merely an indication of "disordered nerves". The very fact that so many remedies have been suggested for its amelioration is of itself evidence that none has proved uniformly satisfactory. Yet, this state of confusion is perhaps more hopeful than the acquiescence of indifference. At the very least it argues that a certain part of the medical profession is actively interested in doing something to lessen the suffering of those afflicted with pruritus ani, no matter how at variance their theories of cause and cure may be. In the past there has been a very general tendency to make light of the condition, to regard it as something not at all worthy of serious consideration either by

the general practitioner or the specializing proctologist. This period of indifference was preceded by one of equal over-emphasis, if we may judge by the number of articles concerning it which appeared in medical literature at the turn of the century. At that time almost every writer had a different idea concerning causation and offered something original in the way of treatment. And in every case both the theories and remedies proved largely futile.

Careful examination of the mass of literature which has accumulated concerning pruritus ani convinces one that there has been universal failure to appreciate the fact that no single cause underlies all cases under observation, and that as a logical corollary to this, no single therapeutic procedure is capable of bringing about cure. Each case represents an isolated problem, the study and solution of which may well occupy the attention of the best minds engaged in medical research. Not until this point of view has become general can we hope to see any definite advance in the control of this much misunderstood ailment.

Determination of Causes. The admonition to precede every special examination by a general inspection of the entire body, nowhere needs more emphasis than in the investigation of pruritus ani. While observation indicates that it *may* be a strictly local manifestation, the chance of its being dependent upon some affection considerably removed from the site of symptoms is far too great to permit negligence in ruling out every possibility of this kind. In fact, we have 2 perfectly definite clinical types—one a distinct disease entity and the other merely a symptom of a more or less unrelated pathologic condition located elsewhere. To determine with exactitude the form of pruritus with which we have to deal the diagnostic routine must be complete and thorough.

History-taking should be done with utmost care. In this way, at the very outset the examiner may come into possession of clues which will enable him to classify the particular case. Personal habits, diet—and in particular dietary indiscretions—information concerning existing visceral disease or occurrence

of such disease in the past, all should be questioned and every bit of evidence carefully weighed. Association of pruritus ani with such constitutional affections as diabetes, glycosuria, nephritis, gout or rheumatism, or the venereal infections is very generally recognized. That any disturbance of the gastrointestinal canal or urinary tract may be indirectly responsible for itching around the anus is by no means so well known. Yet, in an unusually wide experience with this affection I have been continually more impressed by the likelihood of locating the causal factors in an especially obscure case somewhere within one of these tracts.

Coloproctitis. Chief among the causes of anal itching, otherwise than local, I would rank inflammation of the colon and rectum; of cases observed in my clinic during a 5-year period (numbering nearly 400) almost 1/5 were eventually traced to such inflammatory foci. Constipation and diarrhea are included in this classification, for in my experience these 2 conditions are to be regarded not as disease entities but merely as symptoms of some lesion in the eliminative tract. When such a lesion exists there are 2 ways by which pruritus can be produced: there may be a directly irritating action upon the perineum of discharges from the intestinal tract; or, nerve stimuli excited by these pathologic manifestations in colon and rectum may be misinterpreted into itching sensations in the anal skin.

Hemorrhoids. Generally conceded to be the main agent in production of anal itching, hemorrhoids have had far too much importance attached to them as etiologic factors. In the series of cases just referred to, only 7.7% could be in any way connected with hemorrhoids. Yet, in eliciting the history, it is of importance to determine whether the patient or his family ever suffered from this condition, and whether varicose veins have been evidenced elsewhere. If such a history is elicited, I have found its chief value lies in establishing the presence of excessive mucous secretion which would be highly irritating to the perineal skin. There is also, however, the likelihood of mechanical interference with the sphincter, in cases where the

hemorrhoid is so close to the anus as to involve it, or even to protrude through it, as not infrequently happens. This undoubtedly induces pruritus ani, though by no means as frequently as popular belief implies.

Lesions of the urogenital tract. The proctologist or other practitioner who undertakes the treatment of pruritus ani should always be able to make a thorough and expert urologic and gynecologic examination, for in such examinations demonstration of a hitherto unnoticed or underestimated disturbance—such as disease of the ovaries or prostatitis—may provide a sound etiologic basis upon which to establish treatment.

Malignancy. If located either in the intestinal or genito-urinary tract, malignancy may give the first evidence of its presence by production of itching of the perineum. If this fact received the attention its importance merits, it might well serve as one of the very early diagnostic signs of cancer. Unfortunately, it is by no means invariable, and even in those cases where the patient promptly seeks relief, failure to make a thorough investigation of the intestinal and urinary tracts deprives him of the benefit possible from such an immediate establishment of diagnosis. Where malignancy is at all advanced, the irritating discharges from the neoplasm are, in themselves, sufficient to induce pruritus. This is, of course, peculiarly true of cancer of the rectum. Diagnosis of this malignancy offers many difficulties, and in a lamentably large proportion of cases which reach the proctologists too late for anything more than palliative treatment, there will be a history of long treatment for "hemorrhoids" or "itching piles". If physicians generally could be induced to regard all anal itching as a symptom fraught with grave significance, and would remain unsatisfied until complete inspection had ruled out all possibility of malignancy, we would undoubtedly see a reduction in the present fearful mortality from rectal cancer.

Treatment of indirect causes. It is evident that any attention to the local condition, which does not take into account a causal factor higher up, will be merely a waste of time and

effort. Once we have determined that the anal itching is merely a symptom of a pelvic or abdominal lesion elimination of the latter must be our first consideration. Often this will be entirely outside the province of either proctologist or general practitioner, but in any event, the condition at the anus is more than likely to disappear when normal conditions elsewhere have been reestablished. If actual pathologic changes have occurred in the perineum, through excoriation by irritating secretions or trauma due to scratching, or other causes, these will of course require treatment to meet the particular conditions presented.

Local manifestations of pruritus ani. While I have felt it necessary to emphasize the indirect causes of pruritus ani, examination of any extended series of cases which have been carefully analyzed and systematically observed and treated will show that local conditions can be postulated as responsible in a predominant number of instances.

Pathologic conditions in or about the perineum. Definite clinical entities, such as fissure in ano, condylomas, or hemorrhoids, both by giving off irritating secretions and by actual destruction of the epidermal surface, serve to stimulate the peripheral nerve-ends, and the reaction to this stimulation is generally perceived in consciousness as a sensation of itching. In the series of cases to which previous reference has been made, 13.4% presented chronic anal fissure to which the pruritus was directly due, while in 10.3% previously undetected fistulas or sinuses had macerated the skin, through excretion of irritating material, and instituted a pruritus which was soon complicated by a secondary bacterial infection.

Parasitic infestations. Nearly every parasite which is ever entertained by a human host has at one time or another been accused of producing pruritus ani. "Worms"—by which *Oxyuris vermicularis* is usually indicated—is, indeed, a regularly employed explanation of all anal itching among even relatively intelligent laity. Pediculi *Acarus scabiei* (the itch-mite), and tinea trichophytina have likewise been accused, and have been proved the causal factors in well authenticated cases. On the

whole, however, the incidence of pruritus ani of parasitic origin is far lower than is generally supposed. In my own observation less than 1% of the cases could be attributed to the presence of parasites.

Treatment of local manifestations. Whether the primary cause of pruritus ani is to be found in the terminal inch of the anal canal and the circle of cutaneous surface with a radius of 2 in. or more of which the anus is the center; or whether it lies in a remote part of the body, producing itching at the anus by misreference of irritant stimuli arising in this pathologic focus; in any case, we will have a local condition induced by scratching, and generally a superimposed bacterial infection, to which curative treatment must be applied. Frequently the continued trauma of scratching will bring about changes in the skin surrounding the anus and alter its innervation to such an extent that the itching sensation is intensified as time goes on, thus establishing a vicious circle which medical men are often at their wits' end to break.

Salves and ointments. Though I have for years combated the idea that any case of pruritus ani can be placated by prescribing a salve, there are, notwithstanding, a fairly large proportion of cases in which properly used unguents undoubtedly fill a useful place. If the skin has been eroded, and the condition aggravated by scratching, or in cases where scratching alone has traumatized the skin, the protection offered by a simple ointment may be absolutely essential. The object then is to exclude the parts from contact with air and fluids, and for this purpose any of the standard household preparations—vaselin, lanolin, boric or zinc oxide ointment—can be utilized. Any preparation containing an anesthetic is to be condemned, for toleration of the traumatized skin surface is very limited and the effect is likely to be precisely the opposite of that desired. Used thus, an ointment is merely a protective dressing, like a bandage on a cut finger, and should not be regarded as in itself a therapeutic measure.

Vaccine therapy. My conclusions from a study carried out several years ago on the bacteriology of pruritus of the perineum were

that when infection exists in that area the causal agents are both *staphylococci* and *Bacillus coli*. Sections taken from the deeper layers of the skin presented a dermatitis which it seemed reasonable to attribute to an infective origin, and in view of such findings there is certainly ground for the administration of vaccine therapy. Following this line of reasoning, I have made an extensive employment of this therapy, and in carefully selected cases have had excellent results from use of staphylococcus and colon bacillus vaccines. The cases in which such treatment is applied must be strictly limited to those presenting a definite bacterial invasion, which as has been shown is not primarily the agent producing itching about the anus but in many cases is of very great importance in maintenance and aggravation of the condition. Stock vaccines have given perfectly satisfactory results. My practice is to start with the staphylococcus albus vaccine, and if no noticeable result has been attained by the third injection to supplement this with the colon bacillus vaccine. The method of administration does not differ in the main from that employed for vaccine therapy for other affections. Lederle's Pruritus Vaccine now serves the purpose admirably and is useful in immunizing against bacterial invasion.

Treatment applied to the sensory nerve-endings. A still further type of local treatment is that which may be applied with a view to interruption of the sensory stimuli which produce the itching sensations. When excoriation has occurred, cauterization with 10% nitrate of silver solution will exert this effect, and as an adjuvant to protection with suitable ointments is an excellent palliative measure. Undercutting of the affected area—for which purpose I have designed a special double-edged scissors—serves to break the vicious circle in which repeated trauma to the skin by scratching serves to induce further and greater pruritus. Nerve-endings compressed by the fibrosis which is the indirect result of long-continued skin trauma are still more stimulated, and this pathologic increase in activity of the nerve-terminals can be inhibited by severing them just beneath the cu-

taneous surface. This permits the affected area to rest by doing away with the anomalous sensations and the impulse to seek relief by scratching. The operation is in itself extremely simple, being done under local anesthesia in a few minutes. While it can be regarded as nothing more than a palliative measure, its value in the final control and eradication of a most troublesome ailment is considerable.

In closing, I would once again emphasize the entire curability of pruritus and if only physician and patient both will devote to it the serious consideration that is universally accorded conditions far less distressing. Only when the empiric viewpoint is forever banished and each case subjected to an unbiased scientific scrutiny can we hope to see general and permanent relief from this much misunderstood ailment.

OBSERVATIONS ON THE MANAGEMENT OF FRACTURES

LAWRENCE G. BEISLER, M.D.,
Hillside, N. J.

In choosing a title for this paper I have endeavored to adopt one broad enough to allow me to present some personal views and, also to discuss with you, more or less at random, certain phases in the general management of fractures. If the efforts put forth in presentation of the subject or in the following discussion shall succeed in promoting interest or stimulating a greater desire on our part to give the patient a result no worse than the best to which he is entitled, the time consumed will have been well spent.

The physician reading his text-book is frequently struck by the various methods of treating a given case, and is oft-times confused interpreting the means best to apply in the case at hand. Considerable confusion was the result of my reading an article by G. S. Rainey entitled "The Ancient Treatment of Fractures", and finding a most amusing account of fracture of the Ninth Command-

ment. This commandment, "Thou shalt not bear false witness", etc., has to do with prevarication, according to the author, and he contends that Adam suffered the first fracture of this kind, but that, luckily, he had a wife to blame it on. He further contends that the treatment of such a fracture was, and is, hell. Having expected an exposition upon bone fracture treatment by the ancients, this article, in the first few paragraphs, proved to be quite puzzling in interpretation. I concluded, however, that the writer's declaration of the treatment of certain fractures was quite properly stated.

C. S. James is responsible for the statement that this age of quick transportation, with more and faster automobiles and aëroplanes, is causing a greater percentage ratio of trauma with an increase of fractures; an observation I believe to be correct. Furthermore, there is scarcely a doctor in general practice, especially in a metropolitan area, who is not frequently called upon to treat fractures. Upon these grounds, therefore, an occasional review of this subject is surely justified.

The underlying principles in general consideration of fractures, like those of most other fields of human endeavor, are quite well settled. There is a starting point, a desired goal, and a means to obtaining this end. The starting point we must accept, whether it be in a game, a journey or a fracture. The desired goal or end-result in either case is a predetermined factor. The means to an end in the first 2 examples are the preliminary preparation and the rules of the game, or the distance and general direction of travel. These items are quite definite and constant. The plan of the play formation, or the means of transportation with the number of stop-overs, however, must always depend upon individual judgment, experience, and material circumstance. So, with a fracture, reduction, retention, and restoration are universally accepted principles. The plan of action, however, in fracture treatment will always depend upon the soundness of judgment and the individual skill of the physician in charge, the

anatomic and physiologic variety of the fracture and the condition of the patient.

It is quite evident that each of the human factors concerned in fracture treatment, namely patient and physician, are variable quantities, but since judgment and skill are dependent to a considerable degree upon experience, and tend to improve with advancing knowledge, it is reasonable to assume that more and more uniform modes of action with better results will be obtained. However, with our present information, a certain method will often appeal strongly to one man, while another will obtain an equally good outcome by a different procedure. The *modus operandi* pursued by individual workers in following the rule of the 3 R's, i. e. reduction, retention and restoration, will continue for some time to be subject to differences of opinion and controversies.

The works of Paré, in 1569, record a difference of opinion as follows: "M. le Duc d'Ascot did not fail to send a gentleman to the king, with a letter humbly asking he would do him so much kindness and honor as to permit and command his chief surgeon to visit M. le Marquis d'Auret, his brother, who has received a gunshot wound near the knee, with fracture of the bone, about 7 months ago, and the physicians and surgeons all this time had not been able to heal him. I went off, escorted by 2 gentlemen. I found him in a high fever, his eyes sunken with a moribund and yellowish face, his tongue dry and parched, and the whole body much wasted and lean, the voice low as of a man very near death: and I found his thigh much inflamed, suppurating and ulcerated, discharging a greenish and very offensive sanies. I probed it with a silver probe, wherewith I found a large cavity in the middle of the thigh, and other round the knee, sanious and cuniculate: also several scales of bone, some loose, others not. The leg was greatly swollen and imbued with a pituitous humor—and bent and drawn back. They called me to dinner. After dinner, we began our consultation, all the physicians and surgeons together. Each said what he thought of the malady, and in conclusion they all held it hopeless. I told them

there was still some hope, as God and nature sometimes do things which seem to physicians and surgeons impossible. The consultation ended, we went back to the patient, and I made 3 openings in his thigh. The following days I made injections into the depth and cavities of the ulcers, of aegyptiacum, dissolved sometimes in eau-de-vie other times in wine. I applied compresses to the bottom of the sinuous tracts to cleanse and dry the soft spongy flesh, and hollow leaden tents that the sanies might always have a way out, and above them a large plaster of diacalcitheos dissolved in wine. Then when I saw him beginning to get well, I told him we have viols and violins, and a buffoon to make him laugh; which he did. In 6 weeks he began to stand a little on crutches, and to put on fat and get a good natural color."

Stern, in 1927, showed that the controversy over treatment of compound fractures is still on. He advocated cleansing of the wound of all loose and foreign materials, with gentle manipulation to reduce the bone fragments beneath the skin, followed after 4 to 7 days by final reduction. H. W. Orr opens the discussion in this way: "I find myself in disagreement with Dr. Stern; first, as to the necessity of waiting for any particular period for the adjustment of these fractures. It is my opinion that immediate anatomic adjustment is necessary not only for union of the fragments but for the thing Dr. Stern is most concerned about, namely, the circulation and safety of the soft parts. The thing to do is to put the patient on a fracture table and secure the best possible alignment that can be obtained, even using a Steinmann pin or ice-tongs, if necessary. In that way circulation is restored immediately."

Although this divergence of opinion emphasizes the lack of uniformity of views, it is desirable in that it stimulates thought, quickens effort, and promotes progress toward the time when there will be a still better understanding of the subject. Turning to a consideration of some of the specific items in an outline of fracture management, we come to the classification of fractures. Of the numerous types employed the following seems

most suited from the standpoint of management; namely, simple, compound, un-united, and special. Hitzrot has prepared an interesting classification according to prognosis, something like this: First type—With ordinary treatment will give good results. Second type—With ordinary treatment, fair result; with expert treatment, good result. Third type—With ordinary treatment, poor result; with expert treatment, good result. Fourth type—With expert treatment may get poor result.

In the first type are placed simple fractures without displacement. In the second are the Colles' fracture, elbow fractures, etc. The third type includes fractures of the femur, both bones of forearm or leg, cases for open reduction, and comminuted fractures. While to the fourth group belong fractures of the skull and vertebrae, severe crushing, and compound fractures.

The types of simple fracture are too well known to need further discussion. Observations on their management will be considered later. In the treatment of compound fractures, it seems to be the consensus of opinion that extensive débridement as practiced during the war was a good emergency measure but is too radical for peace times. Stern, Clough, Royster, Newell and others take this view. A conservative and early débridement with antiseptic cleansing, immediate reduction, dressing and splintage, are the order of the day. Delayed union and non-union are not yet entirely understood. Todd and Iler show areas of low vitality and inequality of vigor in bone repair, which are due in some cases to bone damage with periosteal stripping and destruction of the cambium layer, and which in others are due to causes more obscure.

In the matter of diagnosis, immediate examination and recording of loss or impairment of circulation, sensation and motion should be made. Also, according to Clough, "examine both legs". He says: "A man came in with a fracture of both bones of the leg. We set the fracture and got a fine line. It took a lot of persuasion of the doctor's friends to keep him from being sued for making a bow-leg straight; therefore, the first

thing to do is to examine both legs." The constitutional condition of the patient is important. Lues, diabetes, arthritic tendency, and bone dyscrasia, as well as myositis ossificans will influence end-results, as will also the temperament of the patient. Coöperation is necessary for a satisfactory outcome. This was recognized as early as 300 B. C., by Hippocrates, who is recorded as saying: "The physician must not only be prepared to do what is right himself, but also, to make the patient, the attendants, and externals co-operate."

Immediate reduction is advocated. Darach and Hitzrot speak of the swelling, infiltration, organization and contracture of muscles which begin immediately. Late reduction increases trauma and delays repair. Todd and Iler, in experiments upon animals, show the presence of giant cells the first day; fibroblasts, with periosteal and endosteal thickening the second day; on the fourth, they find new bone, as dentations under the cambium layer; on the sixth, "internal callus completely bridges the cut"; and on the tenth day "external and internal callus have joined within the cut". The statement of several workers that "a fracture with displacement should be considered as much an emergency as is a case of perforated gastric ulcer", in my opinion draws an inexact comparison, since delay in the latter case means almost certain death to the patient, and this is not true in the case of a fracture (except possibly of the skull). At the same time, however, it is just as unscientific to delay reduction of a fracture as it is to temporize with acute appendicitis.

Of all the closed methods of reduction, that which will, if possible, immediately and completely reduce the fracture "at one sitting" is to be preferred. I have demonstrated to my own satisfaction that most fractures of the femur, even in the adult, can be maintained in reduction in a plaster cast, combined with adhesive plaster skin traction under the cast, when traction seems necessary. Regarding skeletal traction, Clough says: "For a while we put a pin through the os calcis. We have

given it up because every once in awhile we have a bad case of low-grade, long-standing infraction following." My own experience is the same with this method since I had one such case which healed only after many months. Tongs inserted into the femoral condyles and the pin introduced through the condyles, through the os calcis or over its border are used with much favor, nevertheless. Conwell cites 88 fractures of the femur treated with calipers or tongs, with 4 cases of open operation and 11 cases of shortening. There is no mention by him of any wound infections following introduction of the tongs, but I can mention a case of my own which developed an extensive thigh infection 3 weeks after insertion of the tongs. Naturally, I am not very fond of this kind of traction, although my experience with it is very limited.

Literature dealing with open operations on fractures is voluminous and interesting. Albee advocates bone grafts; Sherman, of Pittsburgh, uses bone plates; Henderson describes intramedullary grafts and pegs; one worker uses osteoperiosteal flap grafts; others advocate absorbable sutures, wire, nails, ivory, beef-bone, Parkam bands, etc. Clough cites the work of Zierold, at the University of Minnesota, regarding non-union in animals, who found that steel plates often inhibit bone growth, iron plates less frequently inhibit growth, and stellite plates were absolutely neutral, whereas, copper is a direct bone proliferator. Clough states that he has had no trouble since using copper plates and copper wire, saying: "I bought from Montgomery Ward's auto section a little instrument used to fasten wire hoops around the radiator hose. For an oblique fracture I take common ordinary copper wire and that 46 cent instrument, and wire the fracture. The instrument is the most valuable tool I have in my armamentarium."

Newell claims that in treating 2374 fractures it was necessary to do only 64 open operations; a little less than 3%. In the matter of open operation, it seems reasonable to draw the following conclusions: except in

fractures of the olecranon and patella, which are reduced by immediate operation, the indication is to persist in the use of conservative or closed methods until diligent and reasonable trial proves them inadequate to produce the desired result; then open operation or, if preferred, skeletal traction should be instituted without further delay. We should not attempt, however, to soothe our consciences into the belief that the desired result is one which will be "good enough", but rather that it is the "best possible".

Retention splints should be removed at the earliest possible moment to allow for massage and motion of joints and soft parts. In restoration the most valuable procedures are, undoubtedly, early active motion and massage. Usage should be begun and increased consistent with absence of or diminishing local reaction to tests for union, such as firm massage, pressure and weight bearing. End-results are determined by estimation of function, union and contour. They can be represented by arbitrary percentage figures; Moorhead allowing 60% for function, 30% for union and 10% for contour.

CONCLUSIONS

- (1) X-ray all suspicious injuries.
- (2) Record impairments of circulation, sensation and motion.
- (3) Reduce as immediately and as completely as possible.
- (4) Retain in the proper anatomic and physiologic position by the mechanical means best suited to the individual case.
- (5) Remove splints and start active motion early.
- (6) Follow conservative methods but discard them at once if "slip-shod" or inadequate.
- (7) The words "always" and "never" should be used very guardedly, if at all, in the management of fractures.

EARLY DIAGNOSIS OF PREGNANCY BY THE ASHHEIM-ZONDEK RE- ACTION; ITS CLINICAL SIGNIFICANCE*

RITA FINKLER, M.D.,
Newark, N. J.

Ashheim-Zondek reaction of early diagnosis of pregnancy rests on the discovery of the action of anterior pituitary hormone on the ovaries of immature mice and rats. The ovarian and anterior pituitary hormones are normally present in the body in small amounts during a non-pregnant state; in pregnancy, however, there is a tremendous overproduction of these hormones and they are found in the blood and urine several thousand times the amount present normally. In the urine these hormones make their appearance much earlier than in the blood, probably due to the fact that in early pregnancy there is an increased permeability in the kidneys, allowing rapid excretion of the hormone and thus depleting the blood stream; later, after the tenth week, when the placenta takes over the action of the corpus luteum, the renal permeability is not so great and the hormones can be demonstrated in the blood. The anterior pituitary hormone makes its appearance in the urine much earlier than the follicular hormone; can be easily detected in pregnancy a few days after the missed period. The ovarian, or follicular, hormone is produced in the ripening graafian follicle; when the follicle bursts and expels the ovum, the hormone is liberated and induces estrum, which is manifested by enlargement and edema of the uterus and tubes (or uteri), which fill with secretions. There is also a desquamation of vaginal epithelium and definite cornification of the epithelial cells.

The technic of demonstrating various stages of the estrual cycle in mice, which occurs normally every 5 or 6 days, was first described by Stockard and Papanicolaou, in 1917, and

* (Read before the Clinical Society of Newark Beth Israel Hospital March 5, 1930).

elaborated by Long and Evans in 1923-25. Further investigations by Allen and Doisy culminated in the discovery that an extract made from the follicular fluid and injected into castrated mice induces an artificial estrual cycle, provided the mice are not senile.

This follicular hormone is also present in the blood in premenstrual stage, as demonstrated by Dr. Robert Frank; also in the urine in certain cases of polyhormonal amenorrhea, severe pelvic inflammatory conditions, and ovarian tumors. The diagnostic significance of the presence of this hormone in pregnancy would therefore be not more than 65-75%. The anterior pituitary hormone, however, is present in excess only in pregnancy. This hormone is the primary, activating, motor sex hormone responsible for maturation of the immature graafian follicles and the whole complete explosive change of the immature into the mature ovary. The aforesaid is the working theory on which the entire test is based, but before presenting details of the actual work may I state that it is my purpose to present just a brief résumé of our work confirming the value of the test. Since the details and elements of the Ashheim-Zondek test are universally found in medical literature the conciseness of this paper should not deduct from the work involved or the efficacy and value of this test.

When the urine of a pregnant patient, no matter how early the stage of pregnancy may be, is injected into immature or infantile mice there follows: rapid enlargement of the graafian follicles; luteinization of the granulose cells which produces corpora lutea; and hemorrhages into the graafian follicles after expulsion of the ovum and production of the corpora hemorrhagica. Although I stated that the anterior pituitary hormone is found in excess in the urine only in pregnancy there are a few rare conditions when this hormone is found in the urine in sufficient quantity to give the typical reaction in the ovaries of mice. These conditions are: (1) Early stages of pituitary tumor (acromegaly); (2) genital carcinoma, especially of the ovary; (3) lutein cyst; (4) cystic mole and chorionepithelioma. After an incomplete removal of a cystic mole,

the urine of the patient should be tested for many months after operation; a positive reaction will indicate a degenerative change of the mole into chorionepithelioma.

This brings us to the clinical significance of the test. The importance of making an early diagnosis of pregnancy is brought home to every physician very frequently, especially with: obese patients subject to amenorrhea; the puzzled patient approaching menopause; differentiation between a small fibroid and early pregnancy; and differentiation between an extra-uterine pregnancy and tubo-ovarian disease. Ashheim and Zondek, and those who duplicated their work, found the test to be from 97-98% correct. To date, I have examined over 60 specimens for various physicians and have made an incorrect report only once and that was during the early stage of this work. I had given a positive report after a hasty examination. Microscopic examination was negative.

It is interesting to note that 3000-4000 years ago Egyptians made an early diagnosis of pregnancy through the urine in the following manner: If a woman wished to know whether she was pregnant she was instructed to bring a vessel filled with earth, barley and wheat, and told to pour her urine on it at intervals and if the grains sprouted and grew she was considered pregnant. This test was found described in an old papyrus.

Our technic is a little more complicated and is, as follows: Patient is instructed to bring a morning specimen of urine, collected in a clean manner, before any intake of fluids to insure the greatest concentration of the hormone. The urine is filtered and acidified with acetic acid, should it be alkaline. One drop of phenol is added to each 50 c.c. urine for preservation, as the same specimen is used throughout the test. Five female mice, from 6-8 gm. in weight are used for the test; the weight being defined for following reasons: a female white mouse comes into normal maturity at the weight of about 12-13 gm.; very rarely they will come into spontaneous maturity at the weight of 9 gm., for which reason it is safer to use mice under 8 gm.; under 6

gm. the mice are infantile, very delicate, and die easily.

Each mouse is marked with carbol-fuchsin, for identification, in the following manner: The first mouse on the head, second on back, third on tail, fourth on the right paw, fifth on the left paw. Each mouse receives a definite dose at each injection: First, 0.2 c.c.; second, 0.25 c.c.; third, 0.30 c.c.; fourth, 0.30 c.c.; fifth, 0.40 c.c. The mice are injected 3 days in succession: First day, twice; second day, 3 times; third day, once; fourth day, no injections, but vaginal smears are taken to watch for estrual cycle; fifth day, autopsy.

On autopsy we observe the following: Condition of uterus, tubes and ovaries. Reactions are divided as follows: (1) Edema and enlargement of the uterus, tubes and ovaries. (2) Formation of corpora lutea, plainly seen with the naked eye or with a magnifying glass. (3) Formation of corpora hemorrhagica, bluish red spots seen very plainly. Only reactions 2 and 3 are diagnostic of pregnancy as reaction 1 may be due to excess of folliculin (ovarian) hormone only, which may be found in the conditions I mentioned before. If there is any doubt after a microscopic examination, the ovary may be placed on a slide, pressed down with a cover slip, and examined under low power. On the microscope graafian follicles, corpora lutea and corpora hemorrhagica are seen very plainly. Also sections can be made and the diagnosis verified microscopically.

Sixty-nine specimens were examined: 20 known pregnancies—all positive, except 1 patient, 8 months pregnant; toward the end of pregnancy the reaction becomes weak and it disappears completely from 6-8 days after delivery. There were 16 known non-pregnant patients; adolescent boys and girls, women in premenstrual and postmenstrual stages, and women in menopause; all of whom gave a negative test. There were 33 cases of suspected pregnancies and positive reports were later verified as such, and also the negative except 1 case where a hasty diagnosis was given as positive, although there were no corpora lutea or corpora hemorrhagica

present, and sections later proved the case to be negative as the strong folliculin reaction was due to a severe pelvic inflammation. There was a case where the patient complained of nausea 2 weeks after a therapeutic abortion, in which the Ashheim-Zondek test proved positive. That patient was re-curetted and the product of conception was removed. In another case where diagnosis of pregnancy was made clinically and the Ashheim-Zondek test proved negative, clinical reëxamination revealed an ovarian cyst in front of the uterus. Another patient was admitted to the hospital with a complete procidentia and history of menstrual delay of a few days, and the type of the operation depended on whether she was pregnant. The Ashheim-Zondek test proved positive. Hysterectomy was performed and the diagnosis of pregnancy was confirmed.

I wish to thank Dr. Edwin Steiner for the moral support and encouragement given me throughout the many months of work, and also Dr. Asher Yaguda for placing at my disposal all the facilities and assistance of his splendid pathologic department.

WILL SEX BE FORETOLD?

C. V. CRASTER, M.D.,
Newark, N. J.

Are we on the track of great and outstanding discoveries which will reveal to us one of nature's most carefully guarded secrets, the way in which sex is determined in the offspring of human beings? The problem, old as civilization itself, harks back through the ages to the dim beginnings of human culture. Man, thanks to the protection of his early social life, was relieved of his fierce fight for existence with the wild animals on his terrain, and the constant pursuit of food, so that he had time for meditation and introspection. Events which in the primeval state were at first attributed to the will of good or bad spirits, or all-seeing tribal gods, were observed by the awakening minds and became matters for discussion. There are few sub-

jects that apparently have so intrigued the imagination of man as the problem of sex determination, and every age seems to have contributed its quota of opinion and advice. The need for male children must have been of tragic significance among nations, the number of whose fighting men was reduced as the result of continued war, and to the individual whose family would be scattered and his wealth seized unless a son was given him to secure his heritage. It is not surprising, therefore, to find in many of the ancient writings very definite instructions as to how the sex of offspring could be controlled. The Talmud contained a code of advice that was considered authoritative as to how the birth of males and females could be influenced. Hippocrates, Aristotle and Galen, each had opinions upon the subject, which generally crystalized into a belief that human beings were endowed with male and female sexual glands and that the birth of one sex or the other depended upon the strength of the individual parent.

NATURE'S BALANCE

In those countries where statistical evidence is available and fairly accurate it has been observed that the natural ratio of boys and girls born varies only to a moderate degree. The figure for children born in Germany, for instance, from 1900 to 1915 showed an average of about 105 boys to 100 girls. Since the war this ratio has somewhat increased; 108 boys to 100 girls (Simon & Heicht). That the ratio has changed little in 32 years is shown in figures stated by Carpenter, in 1868, who recorded a ratio of 106 boys to 100 girls in the births for Great Britain.

DARWIN'S OPINION

Darwin was able to collect a mass of data with regard to the proportion of each sex, not only among men but among animals, birds and insects. It was shown that among pigs, rabbits, and pigeons, more males are born than females. Among horses, the proportion was 99.4 males to 100 females. In dogs, among greyhounds, 110 males to 100 females. Among horned cattle, 94.4 males to 100 females; poultry 94.7 males to 100 females. Among human beings, the male births in Eng-

land in 1857 were 105.2 to every 100 female births. The ratio was, however, subject to extreme variation; for instance, the mean rate for 10 years in the County of Buckinghamshire was 102.8 for males to 100 females, and for North Wales, 106.2 males to 100 females. In France, during 44 years, the ratio of males to females was 106 to 100; in Russia, 108.9 to 100. Among Jews, the ratio for boys to girls is considerably higher than that among other civilized races.

In some foreign countries, especially among uncivilized races, the sex ratio may be considerably changed. Among the Todas, a hill tribe of India, a ratio of 133.3 males to 100 females was found to exist, according to Marshall, and among the Maoris of New Zealand, the ratio was 130.30 to 100. As both these tribes had recently practiced infanticide and as girls were usually killed in preference to boys, these figures are open to some criticism. It was Darwin's opinion that the whole problem of sex determination was so intricate that it was safer to leave its solution to the future.

THE EXCESS OF BOYS

The phenomenon in the production of the sexes is not that there are more boys than girls but that there is not a much greater preponderance of one sex above the other in any one race. Under ordinary circumstances it would appear that the excess of boys born meets generally the needs of mankind and apparently is offset by a greater fatality among males at certain ages. By reason of great size and length and weight, the male is more liable to the fatal accidents of birth. According to Faye, for every 100 still-born females there are from 134.9 to 144.9 still-born males. The total number born dead is greater in males than females as 3-2. The first few months of life are also more fatal to boys than girls. After 14 years, the female mortality is higher, but at ages 18 to 25 years the mortality again becomes higher in males. It can be said that equality of the sexes in non-fluid populations is brought about by the greater death rate among males at birth and later among young male adults than among females of the same

age. In older countries, however, the females tend to preponderance owing to emigration and the loss of males in warfare.

SUPPOSED NATURAL FACTORS INFLUENCING SEX

Some years ago, Hofacker, in Germany, and Sadler, in England, published statistics to show that when the father was older than the mother male offsprings would predominate and that the preponderance of boys to girls born increased in direct relation to the age of the father. These observations were not confirmed by other investigators. Thury, in France, held that as a result of his observations upon cows sex was determined by the age of the ovum at the time of fertilization with the male gamete. This theory was found not to be true of human beings, as most pregnancies occur when the ovum is mature and the offspring will not be particularly of either sex. Ploss was of the opinion that when food was cheap there was an excess of girls born, probably a reflection of an old fable held by farmers that when sheep are kept upon upland glades where grass is sparse more rams are born than when the flock is grazed upon rich meadowland. The age of the mother, according to Bidder, influences the sex of the child; the older the woman, the greater the number of males born. To support this view, Darwin's law of the cross-heredity of sex is quoted, the older parent by reason of the shorter span of life seeks to influence the sex so that an opposite is born that the race may be continued.

The seasons, climate, disease and war, have been supposed to have their due effect upon sex of the embryo but in nearly all those situations so many conflicting circumstances have to be considered as to make any deduction valueless. A more persistent tradition has been that of the physical condition of the mother, in that a state of exhaustion and low physical resistance tends to produce female offsprings; conversely, a high condition of bodily well being in the mother will tend to produce male offspring. Leopold Schenk, from the results of observation upon a poul-

try farm, maintained that better nourishment of the mother seems to exercise an influence upon the sex of the young. It was his opinion that male children were produced only in women who were physically of high standard: "By proper dieting, avoidance of starches and increase of meats, a woman can reach the stage in which she becomes sexually superior to the man and her offspring will then be male, in accordance with the law of the cross-heredity of sex." Schenk's theory, and others like it, have not been proved tenable and are now generally discredited.

HAS EXPERIMENTAL EVIDENCE GIVEN THE KEY?

The world moves ahead as the result of research and investigation, and very important observations have been made recently in the laboratory upon influencing the sex of animals. Dr. Agnes Blum, in Germany, by special treatment of white mice with such drugs as alcohol, yohimbin and caffeine brought about a change in the sex of offspring whereby more males were produced than females. The results achieved were only seen when males were treated, no effects being observed when females were put under the same régime. The results would suggest the existence of 2 types of gametes among the spermatozoa of the male, one producing males and the other females; the drugs used upon the animals experimented with probably being inhibitory to the motility or activity of the female producing gametes. The evidence showed that the normal ratio of males to females among white mice (80-100) was changed when alcohol was used to 127 males to 100 females; when yohimbin was used 120-100; and with caffeine 126-100. That there are 2 types of gametes, or male fertilizing cells, has been maintained for sometime by McLury, in America, as a result of the work of Henking and Montgomery, in which certain accessory chromosomes had been demonstrated in the spermatozoa. It is McLury's opinion that these 2 types are the male and female fertilizing agents. Alich, of Paris, disputes this view and argues that sex is probably as much de-

terminated by the female ovum as the spermatozoa of the male.

MENDELIAN INFLUENCES

The solution of many problems in inherited characters has been found as a result of the wider application of Mendel's theory. It is generally accepted that color and form, as well as certain changes in body structure, are possible of production by choosing parents exhibiting definite characteristics. This has been proved by the work of stock breeders who have by these means produced all varieties of types among horses, cows, sheep, pigs and fowls, irrespective of whatever environment the animals might be required to adopt. These new strains have been shown to breed true, within a certain proportion of the descendants, although aberrant varieties tend to occur from time to time.

How far the question of the sex of the individual is governed by Mendelian laws has not as yet been sufficiently tested. It is, however, a common observation among physicians that certain families have more boys than girls and others more girls than boys and that such tendencies remain in the descendants for several generations. The ability of the individual to beget one sex or the other would indicate that there is probably a dominant character, either male or female, in each individual, and that the question of the sex of the embryo is not a thing of mere chance but has a definite factor in the transmitted body cellular plasma. If, then, sex is a transmitted trait we would expect quite naturally that it can be proved to exist under normal conditions in the record of family genealogies and that it can be traced when 2 individuals are mated, with family histories of opposite types, that is one with a history of the predominance of either sex. This could of course be most easily carried out by means of experiments with laboratory animals or upon stock farms but, so far, little evidence along this line is available. Under such conditions it is probable that there is a very definite transmitted trend for equal numbers of males and females inherent in the body plasma, but that changes

in this inherited plasma, as a result of diseases, accidents or even environmental conditions, have resulted in the predominance of one sex fertilization over the other in the descendants of parents exposed to such conditions.

In the genealogies of Noble and Kingly, families of Europe which were kept with care and accuracy even from earliest time, it is interesting to follow up the line of certain families in which either sex was predominant in the descendants. William, first Norman King of England, had 4 children, 3 boys and 1 girl. This preponderance of boys continued through 3 generations so that out of 13 descendants only 2 were females. This sex trend was transmitted in one case through a male and in another case through a female of this line.

Egbert, King of the Saxons, who reigned 802-839 AD, had 15 descendants in 7 generations, all of whom were males. King John of England, who was 1 of 4 brothers, and no sisters, and who came from the predominant boy strain of William the Norman, did not seem to have lost the power of producing a preponderance of boys as a result of his marriage with Isabella of Angoulême, so that among the 12 of his descendants only 3 were females; these latter had no children, so we cannot learn how far sex factors were transmitted. James the First of England and Sixth of Scotland is a good example of a less predominant male trend. In 5 generations there were 13 descendants, 5 of whom were females. In all these genealogies it is clear that a strong boy trend persisted. Whether this was a result of the machinations of courtiers who had the making of royal marriages in hand, and in this way selected brides from families where boys predominated, or whether natural selections made played its part, it is certain that these figures approximate very generally the sex ratio observed among man as well as among animals in most civilized countries. It is generally easy to foretell the sex of any child in a family where the ratio of boys to girls has been accurately kept and of course by applying to this information the Mendelian principles of transmitted characters.

PSYCHO-ANALYSIS AND THE FAMILY PHYSICIAN*

EMIL HAJOS, PH.D.,
Leipzig

I do not know how familiar some of you may be, either from reading or from hearsay, with psycho-analysis, but I may presume that you do know that psycho-analysis is a method of treating nervous patients medically, and I can illustrate how the procedure in this field is precisely the reverse of that which is the rule in medical practice. Usually, when we introduce a patient to medical technic which is strange to him we minimize its difficulties and give him confident promises concerning the result of treatment. When, however, we undertake psycho-analytic treatment with a neurotic patient we proceed in different fashion. We hold before him the difficulties of the method, its length, the exertions and the sacrifices which it will cost him, and, as to the result, tell him that we make no definite promises, that the result depends on his conduct, on his understanding, on his adaptability, on his perseverance. I shall attempt to show you how the whole trend of your previous training and all your accustomed mental habits must unavoidably have made you opponents of psycho-analysis, and how much you must overcome in yourselves in order to master this instinctive opposition. Of course, I cannot predict how much psycho-analytic understanding you will gain from my talk this evening but I can promise this, that by listening you will not learn how to undertake a psycho-analytic treatment or how to carry one to completion. Furthermore, should I find anyone among you who does not feel satisfied with a cursory acquaintance with psycho-analysis, but who would like to enter into a more enduring relationship with it, I shall not only dissuade him but I shall actually warn him against it. As things now stand, a person would by such a choice of profession ruin his every chance of success at a univer-

sity and if he goes out into the world as a practicing physician, he will find himself in a society which does not understand his aims, which regards him with suspicion and hostility, and which turns loose upon him all the malicious spirits which lurk within it. However, there are always enough individuals who are interested in anything which may be added to the sum total of knowledge, despite such inconveniences. But all of you have the right to know what these difficulties of psycho-analysis are to which I have alluded.

First of all, we encounter difficulties inherent in the teaching and exposition of psycho-analysis. In your medical instruction you have been accustomed to visual demonstration. You see the anatomic specimen, the precipitate in the chemical reaction, the contraction of the muscle as the result of the stimulation of its nerves. Later the patient is presented to your senses: the symptoms of his malady, the products of the pathologic processes, in many cases even the cause of the disease is shown in isolated state. In the surgical department you are made to witness the steps by which one brings relief to the patient. Even in psychiatry the demonstration affords you, by the patients changed facial play, his manner of speech and his behavior, a wealth of observations which leave far reaching impressions. Thus, the medical teacher preponderantly plays the rôle of a guide and instructor who accompanies you through a museum in which you contract an immediate relationship to the exhibits, and in which you believe yourself to have been convinced through your own observation of the existence of the new things you see.

Unfortunately, everything is different in psycho-analysis; there nothing occurs but an interchange of words between the patient and the physician. The patient talks, tells of his past experiences and present impressions, complains, confesses his wishes and emotions. The physician listens, tries to direct the thought processes of the patient, reminds him of things, forces his attention into certain channels, gives him explanations and observes the reactions of the understanding or denial which he calls forth in the patient. The un-

(*Read before the Asbury Park Medical Society, March 11, 1930.)

educated relatives of our patients—persons who are impressed only by the visible and tangible, preferably by such procedure as one sees in the motion picture theatres—never miss an opportunity of voicing their skepticism as to how one can “do anything for the malady through mere talk”. Such thinking, of course, is as short sighted as it is inconsistent. For these are the very persons who know with such certainty that the patients merely imagine their symptoms. Words were originally magic, and the spoken word retains much of its old magical power even today. With words one can make another blessed or drive him to despair, by words the teacher transfers his knowledge to the pupil, by words the speaker sweeps his audience with him and determines its judgments and decisions. Words call forth effects and are the universal means of influencing human beings. Therefore, let us be satisfied if we may be auditors of the words which are exchanged between the analyst and the patient.

But even that is impossible. The conversation of which the psycho-analytic treatment consists brooks no auditor, it cannot be demonstrated. One can, of course, present a neurasthenic or hysteric to the students in a psychiatric lecture. He tells of his complaints and symptoms, but of nothing else. The communications which are necessary for the analysis are made only under the conditions of a special affective relationship to the physician; the patient would become dumb as soon as he became aware of a single impartial witness. For these communications concern the most intimate part of his psychic life, everything which as a socially independent person he must conceal from others; these communications deal with everything which, as an harmonious personality, he will not admit even to himself.

The fact is, the study is not easy and there are not many persons who have learned psycho-analysis thoroughly. Psycho-analysis is learned, first of all, from a study of one's self, through the study of one's own personality. This is not quite what is ordinarily called self observation, but, at a pinch, one can sum it up thus. There is a whole series of

very common and universally known psychic phenomena, which, after some instruction in the technic of psycho-analysis, one can make the subject matter of analysis in one's self. By so doing, one obtains the desired conviction of the reality of the occurrences which psycho-analysis describes and of the correctness of its fundamental conception. To be sure, there are definite limits imposed on progress of this method. One gets much further if one allows himself to be analyzed by a competent analyst, observes the effect of the analysis on his own ego, and at the same time makes use of the opportunity to become familiar with the finer details of the technic of the procedure.

There is a second difficulty in your relation to psycho-analysis for which I cannot hold the science itself responsible, but for which I must ask you to take the responsibility upon yourself, at least in so far as you have hitherto pursued medical studies. Your previous training has given your mental activity a definite bent which leads you far away from psycho-analysis. You may have been trained to reduce the functions of an organism and its disorders anatomically, to explain them in terms of chemistry and physics, and to conceive them biologically, but no portion of your interest has been directed to the psychic life in which, after all, the activity of this wonderfully complex organism culminates. For this reason psychological thinking has remained strange to you and you have accustomed yourselves to regard it with suspicion, to deny it the character of the scientific, to leave it to laymen, poets, natural philosophers and mystics. Such delimitation is surely harmful to your medical activity, for the patient will, as is usual in all human relationships, confront you first of all with his psychic facade; and I am afraid your penalty will be this, that you will be forced to relinquish a portion of the therapeutic influence to which you aspire, to those lay physicians, nature cure fakers and mystics whom you disregard.

I am not overlooking the excuse, whose existence one must admit, for this deficiency in your previous training. There is no philosophic science of therapy which could be made

practicable for your medical purpose. Neither speculative philosophy nor descriptive psychology nor that so-called experimental psychology which allies itself with the physiology of the sense organs as it is taught in the schools, is in a position to teach you anything useful concerning the relation between the physical and the psychical or to put into your hand the key to the understanding of a possible disorder of the psychic functions. Within the field of medicine psychiatry does, it is true; occupy its self with the description of the observed psychic disorders and with their groping into clinical symptom-pictures; but in their better hours the psychiatrists themselves doubt whether their purely descriptive account deserves the name of science. The symptoms which constitute these clinical pictures are known neither in their origin, in their mechanism, nor in their mutual relationship. There are either no discoverable corresponding changes of the anatomic organ of the soul, or else the changes are of such a nature as to yield no enlightenment. Such psychic disturbances are open to therapeutic influence only when they can be identified as secondary phenomena of an otherwise organic affection.

Here is the gap that psycho-analysis aims to fill. It prepares to give psychiatry the omitted psychologic foundation, it hopes to reveal the common bases from which, as a starting point, constant correlation of bodily and psychic disturbances become comprehensible. To this end it must divorce itself from every anatomic, chemical or physiologic supposition which is alien to it. It must work throughout with purely psychologic therapeutic concepts, and just for that reason I fear that at first it will seem strange to you.

I will not make you, your previous training, or your mental bias share the guilt of the next difficulty. With 2 of its assertions psycho-analysis offends the whole world and draws aversion on itself. One of these assertions offends an intellectual prejudice, the other an esthetic moral one. Let us not think too lightly of these prejudices; they are powerful things, remnants of useful, even necessary, developments of mankind. They

are retained through powerful effects and the battle against them is a hard one. The first of these displeasing assertions of psycho-analysis is this, that the psychic processes are in themselves unconscious, and that those which are conscious are merely isolated acts and parts of the total psychic life. Recollect that we are, on the contrary, accustomed to identify the psychic with the conscious. Consciousness actually means for us the distinguished characteristic of the psychic life and psychology is the science of the content of consciousness. Indeed, so obvious does this identification seem to us that we consider its slightest contradiction obvious nonsense, and yet psycho-analysis cannot avoid raising this contradiction; it cannot accept the identity of the conscious with the psychic. Its definition of the psychic affirms that they are processes of the nature of feeling, thinking, willing, and it must assert that there is such a thing as unconscious thinking and unconscious willing. But with this assertion psycho-analysis has alienated, to start with, the sympathy of all friends of sober science, and has laid itself open to the suspicion of being a fantastic mystery study which would build in darkness and fish in murky waters. You, however, gentlemen, naturally cannot as yet understand what justification I have for stigmatizing as a prejudice so abstract a phrase as this one, that "the psychic is consciousness". You cannot know what evaluation can have led to the denial of the unconscious, if such a thing really exists, and what advantage may have resulted from this denial. It sounds like a mere argument over words whether one shall say that the psychic coincides with the conscious or whether one shall extend it beyond that, and yet I can assure you that by the acceptance of the unconscious processes you have paved the way for a decisively new orientation in the world and in science.

Just as little can you guess how intimate a connection this initial boldness of psycho-analysis has with the one that follows. The next assertion which psycho-analysis proclaims as one of its discoveries, affirms that those instinctive impulses which one can only

call sexual in the narrower as well as the wider sense, play an uncommonly large rôle in the causation of nervous and mental diseases, and that those impulses are a causation which has never been adequately appreciated. Nay, indeed, psycho-analysis claims that these same sexual impulses have made contributions whose value cannot be overestimated to the highest cultural, artistic and social achievements of the human mind.

According to my experience, the aversion to this conclusion of psycho-analysis is the most significant source of the opposition which it encounters. Would you like to know how we explain this fact? We believe that civilization was forged by the driving force of vital necessity, and that the process is to a large extent constantly repeated anew, since each individual who newly enters the human community repeats the sacrifice of his instinct satisfaction for the sake of the common good. Among the instinctive forces thus utilized, the sexual impulses play a significant rôle. They are thereby sublimated, i. e., they are diverted from their sexual goals and directed to ends socially higher and no longer sexual. But this result is unstable. The sexual instincts are poorly tamed. Each individual who wishes to ally himself with the achievements of civilization is exposed to the danger of having his sexual instincts rebel against the sublimation. Society can conceive of no more serious menace to its civilization than would arise through the satisfying of the sexual instincts by their redirection toward their original goals. Society therefore does not relish being reminded of this ticklish spot in its origin; it has no interest in having the strength of the sexual instincts recognized and the meaning of the sexual life to the individual clearly delineated. On the contrary, society has taken the course of diverting attention from this whole field. This is the reason why society will not tolerate the above mentioned results of psycho-analytic research, and would prefer to brand it as esthetically offensive and morally objectionable or dangerous. Since, however, one cannot attack an ostensibly objective result of scientific inquiry with such objections, the criticism must

be translated to an intellectual level if it is to be voiced. But it is a predisposition of human nature to consider an unpleasant idea untrue, and then it is easy to find arguments against it. Society thus brands what is unpleasant untrue, denying the conclusions of psycho-analysis with logical and pertinent arguments. These arguments originate from affective sources, however, and society holds to these prejudices against all attempts at refutation.

However, we may claim, gentlemen, that we have allowed no bias of any sort in making any of these contested statements. We merely wished to state facts which we believe to have been discovered by toilsome labor. And we now claim the right unconditionally to reject the interferences in scientific research of any such practical considerations, even before we have investigated whether the apprehension which these considerations are meant to instill are justified or not.

These are but a few of the difficulties which stand in the way of your occupation with psycho-analysis. Perhaps this much attacked psycho-analysis has now found some friends among you who are anxious to see it justify itself as well from another aspect, namely, the therapeutic side. You know that the therapy of psychiatry has hitherto not been able to influence obsessions. Can psycho-analysis, perhaps, do so thanks to its insight into the mechanism of these symptoms? No, gentlemen, it cannot; for the present at least it is just as powerless in the face of these maladies as every other therapy. We can determine what it was that happened within the patient, but we have no means of making the patient himself understand this. In fact I told you that I could not extend the analysis of the obsession beyond the first steps. Would you therefore assert that analysis is objectionable in such cases because it remains without result? I think not. We have the right, indeed have the duty, to pursue scientific research without regard to an immediate practical effect. Some day, though we do not know when or where, every little scrap of knowledge will have been translated into skill, even into therapeutic skill.

The injuries blamed upon psycho-analysis are limited essentially to temporary aggravation of the conflict when the analysis is clumsily handled, or when it is broken off unfinished. You have heard our justification for our form of treatment and you can form your own opinion as to whether or not our endeavors are likely to lead to lasting injury. Misuse of psycho-analysis is possible in various ways, above all transference is a dangerous remedy in the hands of an unconscious physician. But no professional method of procedure is protected from misuse; a knife that is not sharp is of no use in effecting a cure.

THE DIAPHRAGM: A CLINICAL AND ROENTGENOLOGIC STUDY

R. POMERANZ, M.D.,

Newark, N. J.

The diaphragm, being inaccessible to direct observation because of its hidden position in the human body, has been given little attention in the course of clinical examinations, and even postmortem considerations are infrequent because of lack of interest. The Roentgen era has brought out fuller information concerning its position and function, through radiographic and fluoroscopic examinations.

First, let us consider what information we can expect to gain from physical examination. In recording the case history we seldom think of a pathologic diaphragm, even though the pathology may be marked. For example, a patient with a paralyzed diaphragm on one side, a result of operative procedure or mediastinal tumor; we have no symptom referring to loss of function of the involved organ; relaxation of the diaphragm is discovered only in the routine fluoroscopy of the chest. When a patient complains of pains in the back or lower chest, unpleasant heart sensations and difficulty in swallowing, the history should include symptoms of the neighboring organs, because they may direct attention to the diaphragm. Abnormal position of the left diaphragm may even cause gastric ulcer; in case

of diaphragmatic hernia. On inspection we may note a wave-like shadow on either side of the chest, usually at the level of the sixth to eighth intercostal space, moving up and down upon expiration. This so-called Litten sign cannot be observed in heavy patients. Further, we may observe even or uneven expansion of the sides of the chest.

Percussion will give us a great deal of information about the position and function of the diaphragm. Auscultation will not help us save in pronounced and clear-cut diaphragmatic hernias, but we may disclose abnormal chest sounds caused by misplaced viscera. However, one glance under the fluoroscope will give us more information about position and function of the diaphragm than all other physical signs combined.

The fluoroscopic examination should as a rule begin with the dorsoventral direction, proceeding in several oblique directions and ending in the frontolateral direction, in which we are able to appreciate the value of the method seeing how much of the posterior parts of both lung fields are missing in the dorsoventral view.

The diaphragm is a muscular partition between the thoracic and abdominal cavities. It consists of muscular portions laterally and of tendinous central portions. The muscular portions can be divided into 3 subdivisions: lumbar, costal and sternal. Two normal anatomic findings deserve mention. The division of the arch of the diaphragm on the right side, and the double contour. You will see that the mesial half of the diaphragm is lower than the lateral because of uneven contraction of the muscle bundles of different lengths. The bundles between the mesial and lateral halves of the diaphragm show a stronger contraction than the neighboring bundles. The division of the arch on the right side is often mistaken for pleural adhesions. The double contour is also caused by a weakness of the anterior half of the muscle which follows with less resistance than the stronger posterior half to retractive power of the lungs.

Position of the diaphragm depends on 3 factors: (1) intraabdominal pressure, (2) in-

trathoracic pressure and the retraction power of the lungs, (3) tone of the muscle; and each pathologic position of the diaphragm can be explained by consideration of these 3 factors.

We may divide the complicated function of the diaphragm into a static one, consisting in separation of the abdominal and thoracic cavities, and a dynamic consisting of coöperation in breathing and blood circulation. Movements of the diaphragm are active and passive combined. The previously held theory (Luschka) that movements of the diaphragms are a predisposing cause for apical tuberculosis has been disproved recently, for experiments have shown that the diaphragm does not influence apical breathing. Lack of motion of the diaphragm can be noted as an early sign of exudative pleurisy before any exudate has gathered in the pleural cavity. As a variation from normal, we may mention the pear-shaped chest (Wenckebach) in which the diaphragm shows a pseudo-paradox movement. This is easily explained when in the lateral view we see the anterior half moving upward on inspiring but its posterior half downward at the same time (widening of the ribs anteriorly).

We might mention here the less known and appreciated functions of the diaphragm: first, closing of the esophagus on relaxation of respiration contraction; and second, a massaging influence of the left diaphragm on gas contents in stomach and splenic flexure. The normal diaphragm helps to expel gas from the stomach and splenic flexure, while a pathologic diaphragm causes an accumulation of gas in stomach and splenic flexure as a result of suction from the retraction power of the lungs.

Among pathologic conditions we would like to mention first congenital, partial or complete absence of the left diaphragm. Several cases of this kind were reported by LeWald; originally misdiagnosed as diaphragmatic hernias. He recommends examination in the lateral position which, in his opinion, will always disclose the defect. Abnormal high position of both diaphragms can be seen in all conditions of increased intraabdominal pressure—preg-

nancy, ascites, meteorism and obesity. A low position of both diaphragm can be seen in emphysema, asthma and enteroptosis. A high position of the right diaphragm is found in subphrenic abscess, tumor of the liver and diaphragmatic pleurisy. Diminished respiratory movements of one diaphragm or superficial movements are often seen in dry pleurisy. Insufficient inspiratory movement of one diaphragm is very often seen in involvement of the apex on the same side (described by Williams). There are several explanations for this sign but the most plausible is a pathologic involvement of the phrenic nerve. A pathologic high position of left diaphragm can be seen in cases of relaxation of different degrees, or of a diaphragmatic hernia. The differential diagnosis between these is sometimes very difficult; the point is to prove the presence of a diaphragm or of a hernial sac. Among other methods the best one is application of a pneumoperitoneum and if a pneumothorax follows we know that we are dealing with a true hernia, but this method fails if there are adhesions around the hernial sac.

We find gas under the diaphragm after laparotomies and it may sometimes stay there for several days. Next, we find gas under both diaphragms in ruptured viscus especially ruptured gastric duodenal ulcers. Knowledge of this fact can sometimes be used for confirmation of a doubtful diagnosis before operations. We may find gas under one diaphragm in cases of subphrenic abscess and hepatoptosis. If one of the diaphragms is completely paralyzed it shows paradox movement or see-saw movement. And a paradox movement of the diaphragm may occur in cases of pneumothorax with fluid.

Last we want to mention the condition of a persistent high position of the left diaphragm first described by Dillon. We find in these cases a high left diaphragm pushing the heart upward and giving it an aortic appearance. Under left diaphragm there is a large accumulation of gas both in the stomach and in the splenic flexure. We can explain the presence of gas in these organs also by the suction power of the lungs. Clinically, these patients give symptoms either gastric,

cardiac or pulmonary, depending on which organs are mostly involved.

As a cause for persistent high position of the left diaphragm several different hypotheses have been raised, but we need only remember one fact, that the condition is caused by some lesion of the phrenic nerve.

Treatment can be surgical, medical or by radiation in certain cases. Surgical treatment, first experimentally performed on dogs, con-

sists in establishing a connection between the phrenic and recurrent nerves. Another method, apparently with good results, reported by Aronson, consists in a wedge-like resection of the weakened diaphragm muscle. Medical treatment consists of simple dietetic measures which in most cases bring good results. Radiotherapy is indicated in glandular or mediastinal tumors, or inflammatory conditions involving the phrenic nerve.

THE HOUSE BY THE SIDE OF THE ROAD

I see from my house by the side of the road,
By the side of the highway of life,
The men who press with the ardor of hope,
The men who are faint with the strife.
But I turn not away from their smiles nor their tears,
Both parts of an infinite plan.
Let me live in my house by the side of the road
And be a friend to man.

I know there are brook-gladdened meadows ahead
And mountains of wearisome height,
That the road passes on through the long afternoon
And stretches away to the night;
But still I rejoice when the travelers rejoice,
And weep with the strangers that moan,
Nor live in my house by the side of the road
Like a man who dwells alone.

Let me live in my house by the side of the road
Where the race of men go by;
They are good, they are bad, they are weak, they are strong,
Wise—foolish—so am I.
Then why should I sit in the scorner's seat
Or hurl the cynic's ban?
Let me sit in my house by the side of the road
And be a friend to man.

—Sam Walter Foss.

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HENRY C. BARKHORN, M.D., Chairman, 45 Johnson Avenue, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

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PATERNALISM IN MEDICINE

Almost immediately after the close of our own annual meeting, in Atlantic City, the American Medical Association held its annual convention in Detroit. Just as our state society had devoted a large portion of its time to the consideration of economic questions, so the national association put such problems foremost among the topics discussed. Those who did not have the privilege of hearing the Presidential Address delivered by Dr. William Gerry Morgan should take advantage of the first opportunity to read it as published in the Journal of the association, dated June 28. Under the title, "The Medical Profession and the Paternalistic Tendencies of the Times", President Morgan gave a masterly presentation of the origin and steady growth of paternalism in medical affairs. We could wish that he had expanded his remarks in the direction of some solution of the problem, but it is something to have gotten so far as he did, and possibly it is best that he did not attempt to give us any solution, for we cannot be ready to properly consider the solving of a problem until we have an adequate understanding of its beginnings, growth and ramifications.

Starting from the basic principle laid down by Ruskin, that "there is only one way of seeing things rightly, and that is seeing the whole of them", he said: "The statement is equally true of medicine as a whole, curative as well as preventive, and it is particularly true of

American medicine. There has never been a time in the history of our republic when the medical profession had greater need of seeing the whole and looking to the end. Indeed, certain paternalistic tendencies of the times give the same challenge to the very foundations of our system of government, and the problem which the medical profession is facing in reality forms part of the great problem which the nation as a whole faces—the slow-moving, stealthy, vigor-sapping specter of overlordship which, for the want of a better term, we call paternalism."

With that point established, President Morgan reviewed the political development of the human race: The necessity for primitive paternalism in the earliest days of family groups and tribes; the slow development of individualism as families and homes grew beyond the need for physical protection and, with surcease from fighting, individuals could give expression to their talents in the direction of art and science; the abolition of personal slavery and the substitution of industrial slavery; and the tendency at present to constitute a paternalism of the *state* on a much larger scale than the ancient paternalism of the clan. Applying the method of historical review to medicine, he says: "In order to comprehend the paternalistic attitude of government or of society toward matters pertaining to health and general physical and mental well-being, it is not necessary to trace the history of medicine from the time of the migratory clan, with its taboos and its incanta-

tions. As all know, it was long after our progenitors settled down with an established form of government that the practice of medicine developed into anything beyond the incantation, voodoo, superstitious, religio-medical stage. But the individualism which developed as the human race became organized into a more and more highly complex system of life finally began to manifest itself in a new interpretation of the idea that in union there is strength; and with this, as physicians, we are concerned."

The experiences of Germany and Great Britain with governmental sickness insurance plans are considered at some length, and the specter of *state medicine* is presented as the problem most urgently demanding attention of the medical profession. The crux of that problem is stated in the following paragraphs of his paper: "All must grant, there are certain matters pertaining to the health of the citizenry of any country that can be administered more advantageously by the government, national, state or municipal, than by the medical profession, in groups or individually.

The history of the United States Public Health Service, from its beginning in the Marine Hospital Service, authorized by act of Congress and approved by the President in 1798, makes fascinating reading. Its evolution has been gradual, perforce, and has followed the trend of scientific medicine. Its functions now include: (1) protection of the United States from the introduction of disease from without; (2) prevention of the interstate spread of disease and suppression of epidemics; (3) coöperation with state and local boards of health in health matters; (4) investigation of diseases of man; (5) supervision and control of biologic products; (6) public health education and dissemination of health information. To such manifestations of governmental control there can be no objection, and it is sincerely hoped that no encroachments on private rights will ever be made by this splendid agency of our government.

But we are not willing to accept the view expressed by some that public health or preventive medicine has practically no limits.

We are not willing to see the entire population, with the exception of the rich, taken away from the individual physician, whether he be family doctor or specialist, and turned over to the salaried physician who, by virtue of the circumstances under which he must render his service, will not be able to devote to the individual patient the careful study that is or may be required. And when I say that we are not willing to see these things come to pass, I have in mind the interest of the sick and not the bank account of the physician. No scheme has yet been evolved of state insurance, state medicine, or whatever it may be called, that has demonstrated unequivocally the advisability of going the limit in the matter of governmental control over individual health maintenance."

President Morgan has in these last few sentences well described the conflict that is going on, and indicated the delicate boundary line which separates proper governmental control of medical practice from interference with long established individual prerogatives of the physician. Encroachment of public medicine upon private medicine has been until recently slow and somewhat insidious. Gathering momentum with the progress of time, the movement is now much more rapid. If the medical profession desires to guide and control this movement, there must be prompt action or it will almost certainly sweep everything before it as does an avalanche. Acknowledging the good that has been done by governmental direction of public health measures, and further admitting that there are still other medical affairs that may best be dealt with through governmental agencies, we must nevertheless ask ourselves whether it will be to the benefit of the public to have all health matter in the hands of the *state*, or whether we shall attempt to define a proper dividing line and recommend state control of certain matters and the retention of private practice control of others.

Let us all give serious thought to this question, at least. It will not do to "let it alone", for if we sit quietly by and watch events, we may possibly see state medicine fully established in the course of a few years.

Collateral Reading

(Now and again a bit of romance develops in association with the routine life of a medical practitioner. The following article, from Literary Digest of June 21, is of that character, and as it may prove to be but the first evidence of "coming events" that "cast their shadow before", we offer it in lieu of our usual book reference.—Ed.)

THE FLYING DOCTOR

The frantic husband paced the floor. His wife was ill, seriously ill.

He had called the doctor, of course, but it was a long trip out from town—1 hour and 10 minutes by automobile.

Had the doctor started?

Could he make it in time?

To ease his mind, the husband went to the phone again. He called the doctor's office, just to make sure that he was on the way.

But even as he was being given his number and learning that the physician had started, he heard the sound of a motor outside.

It couldn't be the doctor. That would be impossible. There hadn't been enough time for him to make the trip.

But it was the doctor—Dr. Frank A. Brewster, of Holdrege, Nebraska.

In the field beside the house stood the doctor's plane.

Dr. Brewster does not fly just once in a while, in case of an emergency, we learn from Gerald Coburn Griswold in the Omaha *World-Herald*.

This flying physician is in the air almost every day as a matter of course. He has a fleet of 3 planes which he uses in attending to his practice in homes and hospitals scattered over a wide area.

How and why Dr. Brewster flies, with what results, and how homes where there is illness let him know of their needs, Mr. Griswold tells us as we read on:

In the broad and fertile valley of the Republican River there are many homes and windmills.

From high in the air the place of one man looks much like the place of his neighbor.

Windmills also look alike.

Dr. Brewster has sometimes been in doubt.

From a seat in his new Monocoach, he looks down from a height of 2000 feet upon a great flat world.

Yes, there are many homes that look alike and windmills of a piece.

Yet there is one mill that is different!

Look, on one side a white flag flutters, like the signal of distress a shipwrecked crew unfurls above the raft. It is a signal of distress, a sheet from a bed in a house where skill is needed! The doctor swoops toward it.

The folks expect him. That is why they raised the flag he knows so well, that he might find his way.

Long after the white man came to Nebraska, settled, and built roads, the roads were bad.

But Dr. Brewster had to travel them. He walked at first, then he used a bicycle.

His practice increased so he bought a team and rig.

Moving to Beaver City, he kept considerable of his first practice, while the new continually grew. Trains and horses couldn't fill the bill.

The first automobile in Furnas County was purchased by Dr. Brewster. It cost \$750, and came from Detroit in a furniture car.

An instruction book came with it. Quite a crowd collected at the station when it arrived. Dr. Brewster learned to drive from the book.

He was his own mechanic. Sometimes he would get all of 2000 miles from a set of tires. When the roads were good, he'd whizz at 20 miles an hour. There were no filling-stations and garages.

Dr. Brewster bought an automobile solely with better transportation in mind.

For the same reason he bought an airplane.

A hospital was needed badly. So he built the Republican Valley Hospital at Arapahoe, the first in Furnas County and southwestern Nebraska.

It is "a matter of official record that Dr. Brewster was the first physician in the world to buy and operate an airplane for use in making professional calls", the writer claims as he continues his highly informative account:

That first purchase was made in Beaver City 11 years ago. Lieut. Wade Stevens, just discharged from the army air service, "sold" the doctor the idea.

The Curtiss people sold him the plane. It was a JN4, of the type then used as training-planes by the Government. It cost \$8000.

There were no hangars. When the doctor landed, they tied it to a fence to keep it anchored.

To have run out of fuel would have meant a lot of trouble then. The curious were a problem.

To date the doctor has flown about a dozen planes, for which he has paid close to \$50,000. It also costs to operate a plane and keep a pilot at your beck and call.

But the doctor says it is proving a good investment to take care of his practice by reason of his flying.

Dr. Brewster is not a rich man in money, say those who know him well. Practically all

that his practice brings goes back into his work. Right now he has 3 planes on hand.

Dr. Brewster lives in a rented house, but he operates 2 hospitals.

In both he is active every day, though they are miles apart. One is at Holdrege. Just 135 miles southwest of Holdrege by automobile lies Oberlin, Decatur County, Kansas. Here Dr. Brewster has obtained the former home of the late Otis L. Benton, banker, and has converted it into another model hospital. It is known as the Benton Memorial Hospital.

Back and forth 115 miles as the crow flies, so flies Dr. Brewster daily, to call on his patients.

All of the members of the Brewster family are air-minded and fly, although Mrs. Brewster is always more or less anxious when her husband or the others are about it.

Some time back Wayne Brewster cracked up from a height of 800 feet, while riding as a passenger in a plane in Kansas. He suffered severe head injuries, and was unconscious for many days. Despite this he is just as fond of the air as ever.

On May 23, 1919, Dr. Brewster made his first air call. He flew from Beaver City to Herndon, Kansas, to attend an emergency case. Word had come that Guy Sidey, of Eldorado, Kansas, had suffered a fractured skull as the result of an oil derrick accident near Herndon. Reading on:

The trip by auto was 70 miles, and owing to the condition of the roads, would have taken all of 3 hours.

Dr. Brewster in his plane made it in 50 minutes.

Sidey's skull had been crushed. Bits of bone were pressing against the brain.

Dr. Brewster arrived, made a perfect landing, hurried to the man, did what was necessary, and flew back home, all in less time than it would have taken him to reach the injured man by auto.

The next day he flew to the Coöperative Hospital in McCook where he performed 2 operations. Everywhere he went in those early days, town and countryside turned out to see him.

Not a few "false alarms" were sent in by people who were not fortunate enough to be ailing, but who wanted to see the flying doctor, anyway.

But this soon passed.

It wasn't long until those who had been peering anxiously down country roads for a sight of the family doctor's jogging team, learned to tie a sheet to the windmill and look for help from above.

Flying regularly throughout the week for 10 years has rolled up "hours in the air" for the doctor. Already the total is well into 4 figures, and here are more details:

Of course the doctor can fly the plane, but he doesn't very often. When asked the reason, he replied, "Conservation".

Wade Stevens, Warren Kite, killed while flying at Grand Isle, Dr. J. Hodge Smith, Earl Barnes, and Joe Lowry have been his pilots.

Now Arvine J. Bierman, former student of Lowry, works the pilot's stick.

Dr. Brewster and his pilots don't have accidents. There are a number of good reasons.

One is they travel always in the best of ships. Capable of making great speeds, these planes are never pushed to the limit.

No more stunting takes place in the Monocoach than in the operation of the trains that pull in and out of the Holdrege depot.

Esthetics

ANTEDILUVIAN MORALIZATIONS

(From Kalends, Williams and Wilkins Co.)

The burden of the current popular song is to the effect that old man Noah knew a thing or two, even if he did not know it all. Which is not only eminently true but, unfortunately for the ultra-modernists of the feminist persuasion, the thing or two that Noah knew are just as true today as they were before the flood of universal remembrance. Here's one or two of the things that old man Noah held true:

There can be no dispute about the fact that maidens must be wives and mothers to fulfill the entire and holiest end of their existence—biology will not be denied. That's still true.

Sad, but also true, that real happiness and actual intelligence seldom are combined in the same person. That accounts for the honestly altruistic social reformer, who rarely is gifted with exceptional intelligence but does derive happiness from the obsession of "doing God's work", i.e., the missionary complex. The exceptionally intelligent professional "reformer" is in fact not a true reformer; he is simply a clever scoundrel obtaining an easy living. Noah had their number and endeavored to keep them out of the *Ark*, but they sneaked in after having perfumed themselves with so-called "religion". Most of the professionals

of today still regard the odor of sanctity as their greatest asset—but the world is getting wiser.

No, you can't keep good men down, but old Noah had a hunch that the world certainly does give them a helluva lot of unnecessary kicking, which not only bruises them but makes it that much harder for them to get up again.

Sex? The "modernism" of it is amusing! It was old when the daughters of Adam found husbands—where did they find them? They did, however. As for "self-expression", in so far as females are concerned, from the flood until the present era of "freedom" it never has had any other connotation than that of being a trick of the trade which is popularly known as the "oldest profession in the world"—and so long as our present civilization is to be maintained it can have no other.

Sustained appreciation of the worth of a wife, self-sacrificing denials for betterment of offspring, and the innumerable items whose remembrance is called for in the maintenance of a home, all these Noah should have forgotten in the light of some of our present teachings.

Thank God! Noah did not forget them—he built the *Ark*. "Faith, hope, and love still abide", and they are as old as Noah.

Medical Ethics

RESISTANCE

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, New Jersey

Propulsion and resistance co-exist. We are propelled into this life without our volition; but during this life we are given the power of resistance.

The steamship, the airship and the man-ship require both propulsion and resistance; and without these 2 forces each and all would be wrecked. Just as the resistance of the air keeps the airplane from falling; just as the resistance of the water enables the propeller of the steamship to navigate the sea; just so, the power of human resistance keeps the human machine on its plotted course, and ever enables it to withstand disease; even pilots it through dangers destructive (seen and unseen), elemental, physical, mental and moral. Thus the cultivation of resistance enables the human being to develop that wonderful and almost indescribable attribute which goes by the name of *character* and gives the mental

and physical vigor that brings accomplishment and happiness.

How well we know that any physical defect that lowers our resistance puts us in danger of disease. One ever harbors, in and about himself, morbid elements, germs of dread diseases, with active powers to kill. Invisible, microscopic enemies—these lying in the dark, always ready to strike. Like the icebergs that hover in the fog before the Leviathan liner of the sea, they blow no horn, they strike no warning bell. But they have deadly power to slay. How can we avoid the peril? There is a simple way, if we but take it. We must maintain, develop and increase our powers of resistance. As we increase in years this becomes more and more important for our own safety. Have we bodily defects? Have we mental defects? Have we moral defects? Cut them out! Chronic appendicitis? Diseased tonsils? Carious teeth? Gall-stones? Enlarged prostate? Refractive errors of the eye? Discharging ear? Sinus trouble? A suspicious ulcer anywhere on the surface or anywhere in the interior? Varicose veins? Hernia? Chronic skin disease? Bad habits? Bad temper? Too much tobacco? Too much booze? Too few hours of sleep? Too much work? Too much worry? Too inordinate a craze for this world's goods? Too heavy a mental or physical load? *All these things lower our powers of resistance. Cut them out!*

Of course we already know all this. It is as simple as the direction—"if you have a splinter in your thumb, cut it out." But our accidents often come from ignoring and not avoiding simple things that we already know!

Economics

ECONOMIC CONDITIONS IN RELATION TO MEDICAL ORGANIZATION

(An abstract from the President's page, Ohio State Medical Journal, November 1929, written by Dr. Albert H. Freiberg.)

In the 5 year study of the cost of medical care which is being made, there are participating 3 groups who are most deeply interested: the social workers, wealthy philanthropists and large employers of labor, and members of the medical profession. It is by no means apparent as yet what the outcome of this study will be. At the same time, most of the popular writers on this subject seem to have anticipated it. It seems clear to the

most of them that this cost is too high and some of them, at least, find it easy to conclude that the solution of the difficulty is the socialization of medical care and, incidentally, of the medical profession. I say this without hesitation, even though I do not recollect a statement in these words.

A short time ago, I had a lengthy conversation with one of the most profound students of social legislation in this country. His interest in the medical profession is, to my mind, sincere; his sympathy with unfortunate humanity is broad and I am sure that he is disinterested in the formation of his views. In a letter to me he says:

"We all" (meaning the social workers) "do believe, however, in the socialization of a good deal more of medical service than we have yet had in this country. That need not and ought not to be at the expense of the medical profession. It is a proper charge upon the community, to be distributed in 2 ways: first, through compulsory contribution by taxation and, second, through voluntary contribution by charity, charitable foundations and endowments. Surely the medical profession is not opposed to the extension of health education; and health education, without socialization of medical service for those who cannot afford it, would be as meaningless as public education without compulsory school attendance laws, free public schools, free text books and educational appliances for those who cannot afford them or do not prefer to get, at their own expense, equally good or better private facilities. I have yet to hear a complaint made that the cost of providing the highest standards and facilities for education, free for those who cannot otherwise get them is virtually placed upon the teaching profession. On the contrary, it is my opinion that the teaching profession has advanced in status, recognition and material welfare, more rapidly and in proportion to the extent of free public education in those communities where the free schools have attained their largest development.

The economic problem for the doctor will, I believe, be solved just in proportion to the extent that he and the medical profession cooperate in maintaining the standard of medical service of which he is the proper custodian and in making the public, or society at large, realize its obligation and the advantages of a certain modicum and level of free medical service. Certainly for the same reasons that democratic government required heavy sacrifices and sometimes difficult economic adjustments to maintain a high general level of intelligence in its citizens, so a prosperous and progressive society will require a similar effort to maintain a high general level of health."

I have no doubt whatever, that my correspondent is absolutely sincere in what he says. I do not believe that he sees that the proposition which he makes implies a loss in the economic status of the medical profession from its present level; I do not believe that he realizes that it will be practically impossible to limit the extent of the socialization which is involved and that, almost inevitably,

the next step to follow will be state medicine and the doctor as an officer of the state. Once this has taken place, unless it be accompanied by a complete change in our social order, the wealthy who have helped to bring it about will be the first to turn their backs upon the "state doctor" whom they have assisted to create and seek someone who has been able to make a name for himself by his efforts as an unshackled individual.

Nowhere have I thus far seen what I should consider a fair analysis of this question, in truly logical terms. A solution by means of the socialization of the medical profession alone, in a social order which is otherwise capitalistic, is a remarkable proposal. It becomes still more a difficult proposition when it is advanced by those who truly believe in modern medicine, in what it has done and in what it is destined to accomplish for humanity. Men like my correspondent are not our enemies; they are truly striving to raise human living conditions to the highest possible level and to reduce human misery, suffering and misfortune to the lowest terms possible. When the proposal of a further socialization of the service of medical men is made on behalf of a large group who are in all of the other aspects of their lives self-supporting, it becomes still more amazing to me. This is for the reason that this large group of society is subjected to no further analysis of its economic position. It is apparent enough why the rich man does not appear as an object in this discussion and it is plain that the truly indigent are being cared for. The indigent receive care which is, in great part at least, of high grade; it is given them in hospitals and dispensaries which are maintained either by the commonwealth or the donations of the affluent and humanitarian members of the community. It seems to be overlooked, however, that the service of the physicians and surgeons in these institutions is paid for in a relatively small number of instances, only. The expenses of these institutions include every other item except this one, as a rule. Surely this is the one kind of service without which they could not function at all.

The syllogistic argument involving educational experience is to my mind a sophism, even though not wilfully so. Preventive medicine and hygiene are, and have always been socialized through the efforts of the medical profession itself. This is, however, a matter very different from the individual care of members of society, no matter in which stratum they may belong, from an economic standpoint. It is a patent fact that in this commonwealth medical service for the indigent has never been paid for. Were this to

be done, we should have a problem huge beyond all calculation. The suggestion that it be done has never come from the medical profession of this country; but it has also escaped the ratiocination of those who are pleading for a greater socialization of medical service.

WHAT HAS CAUSED THE MEDICAL CRISIS FOR THE WHITE COLLAR MAN?

It is variously attributed to the rise of specialism, the development of new and more expensive methods of diagnosis and treatment and the diminished purchasing power of the dollar. Apparently the cost of modern medical service constitutes the only financial difficulty which requires to be remedied for the great middle class. If there are other economic injustices visited upon them this does not appear in public discussion. They are accustomed to the finer things of life and their appreciation; they apparently can get them to a satisfactory degree; they are expected by their employers and the world at large to live and dress in a genteel manner. They appear able to do this and to be satisfied with their lot until illness appears in the family. Does it not appear strange that the great injustice comes from the hands of a profession, whose rewards have always been measured by the economic condition of the client? Is it not more logical to conclude that in the change of the economic tide the budgetary balance of this whole group of society has been permitted to become too unstable, that there is too little provision for the exigencies of illness, as well as the means for avoiding them which have to be taken into account by all, even by the physician himself?

Perhaps my views in this matter are narrow and colored by my associations. I can only say that I have endeavored to prevent them from becoming so. But certain things seem very clear to me and to the point of being self evident.

(1) Illness and injury are inevitable occurrences in the lives of all human beings in the present state of civilization and industrial organization.

(2) Once they have arisen, in those otherwise economically independent, they call for individual attention and the preservation of the right to choose by whom and how this shall be rendered.

(3) The cost of medical service under such circumstances should be considered a normal expense for the individual to be foreseen and provided against according to the scale of his living in all of its other implications.

(4) There is no economic reason why society should provide this for the individual

who is otherwise self-sustaining, in a manner different from that in which his other necessities are provided for.

(5) The acknowledgment that such special provision must be made for him is an acknowledgment that his wage fails to sustain him. The remedy should lie, therefore, in the elevation of his earning power and in teaching him how to use it; not in the gift to him of service taken, even in part, from another social group.

(6) Provision against such contingencies as we have in mind should constitute a part of his regular budget. It should not require to be balanced by the intervention of the state.

(7) It should be possible for the individual to be insured against the expense of illness, in himself or his family; but only in the same way that it is possible for him now to insure against the burning of his house and its contents. This does not mean "health insurance" as it is commonly understood. This usually implies that medical service is furnished him by contract at a low cost. When one's house is destroyed by fire, no one is called upon to replace it at reduced cost. On the contrary, the money is furnished by means of which it may be rebuilt at the prevailing rate for such commodities as may be required. I am no actuary, but I am convinced that insurance against illness could be furnished on the same principle. As a matter of fact, insurance against accident is provided in this manner, at the present time.

(8) It is necessary to study not only the cost of medical care for the middle class of our country but rather the general economic situation of this whole class of society.

It may be observed that, in what has been said, no especial emphasis has been placed upon the increase in the cost of medical care. This is for the reason that it does not seem feasible to speak of this factor in analytical terms until the report of the Committee on the Cost of Medical Care is available. In principle, however, this is less important than might appear. The cost of medical care cannot, I feel sure, be shown to have increased for one set of persons only, even though it may be evident that it has made difficulties particularly great for them in view of their otherwise unchanged economic position.

Similarly, it may become necessary to acknowledge, once the facts are in our possession, that the cost of medical care is greater than need be; that it may be reduced without loss of efficiency. Information concerning the manner in which this may be accomplished will be welcome to everyone; but it may be made to apply to all classes of society in like terms.

Lighthouse Observations

HAZARD OF ANESTHETIC EXPLOSIONS

The number of reported operating room explosions resulting from ignition of anesthetics, and the serious consequences thereof, led to the appointment of a special committee of the A. M. A. to investigate the causes, the relative danger of different anesthetics, and the means of avoiding risks when administering anesthesia. Dr. Yandell Henderson, Chairman of the Committee, has drafted a report of these investigations (Jour. A. M. A., 94: 1491, May 10, 1930) from which we have made the following abstract:

It is not the function of this report to pass on the merits of ethylene as an anesthetic. The chief task assigned this committee is to estimate the hazard of explosion and to suggest measures of control. Some of the other conditions inducing flares and explosions in connection with anesthesia will also be considered.

The outstanding facts are that ethylene is a combustible gas and that for anesthesia it is used only in apparatus in which a high concentration is mixed with oxygen. Certain mixtures of these 2 gases, if ignited, explode violently. But in order to explode they require some source of fairly intense heat, as an electric spark, a flame, a hot wire or a cautery. The main problem, therefore, amounts to this: What are the conditions during and after anesthesia which occasionally initiate explosion, and how may these conditions be eliminated?

THE HAZARD OF EXPLOSION

If explosion were the only hazard of anesthesia, the simplest way to avoid it would be to use only nonexplosive anesthetics. But the most important nonexplosive anesthetic, chloroform, has dangers of another type far greater than the explosion risks of ethylene or of ether. The perfect form of anesthesia, free from all dangers, has not yet been discovered. Every means and form of anesthesia have to be considered, not as absolutely good or bad, but in its advantages and disadvantages in comparison with the other means and forms of anesthesia now available. The opinion seems to be widely held among those who have had a considerable experience with ethylene that, apart from the risk of explosion, this substance has some marked advantage as an anesthetic. Reports from hospitals in which ethylene has been used show that there is generally a strong desire to eliminate this risk and to continue this form of anesthesia.

On the other hand, reports from some of the foremost hospitals in the country in which ethylene is not used, on account of fear of explosion, show that high grade inhalation anesthesia is effected by means of nitrous oxide and ether in combination or in sequence. The advantages claimed for ethylene are more complete relaxation than under nitrous oxide, more rapid termination of anesthesia than after ether, and less risk of postoperative pneumonia. But these advantages can also be obtained by a combination of nitrous oxide and ether with a postanesthetic hyperventilation with carbon dioxide. Spinal anesthesia and basal anesthesia are also now used effectively. Thus, while ethylene as an anesthetic has many strong supporters, there are also many who doubt whether it has specific advantages unobtainable by other methods sufficient to offset the risk of explosion.

RELATIVE IMPORTANCE OF VARIOUS HAZARDS OF ANESTHESIA

That mode of anesthesia is best which has the lowest mortality and morbidity not merely during the operation but in postoperative period as well. The hazard of explosion in an anesthetic apparatus supplying a combustible gas or vapor, such as ethylene or ether, can be estimated fairly only from the number of deaths assignable to it in comparison to the methods of anesthesia. The chief hazards of anesthesia that have to be compared are fatal failure of respiration, syncope and collapse, postanesthetic necrosis of the liver (chiefly after chloroform), postoperative pneumonia, persistent hiccup, flares and fires from ether, the bursting of cylinders containing any gas under pressure, and particularly cylinders of oxygen or nitrous oxide if the valve is oiled, and, finally, explosions in anesthetic apparatus in which ethylene or ether is administered.

As the chief point of this report is to emphasize the hazard not merely of ethylene but of the anesthetic now used for its administration, it is only fair to point out immediately that the hazards which such apparatus have introduced are small indeed compared to the advantages of better controlled and safer anesthesia which they have also brought. The older methods of anesthesia, now generally discarded in America, probably caused a far larger mortality, both immediate and consequent, than any of the modern methods.

The extent of the hazard from explosion or any other of the less frequent accidents may be estimated by comparing it with the mortality from postoperative pneumonia, the chief general hazard of anesthesia and of major surgery that is still common. The hazard of a death from explosion is certainly less than 1 in 10,000, and probably less than 1 in 100,000. On the other hand the statistics from the New York hospitals reported by Smith and Morton show that the hazard of postoperative pneumonia, especially after operations of necessity, even in first class clinics, has until recently claimed a life for every 300 or 200 or even fewer major surgical operations; in other words, from 3 to 5 or more deaths for each 1000 operations. One hazard is thus many times as great as the other. The hazard of explosion is probably smaller than that of fatally persistent hiccup. This comparison at once eliminates the overweighting of the unusual. At present any death due to an explosion, particularly an explosion of ethylene, is reported on the front page of the newspapers, while 100 deaths from postoperative pneumonia may not include one that is mentioned outside the column of routine death notices. Surgeons and anesthetists need far more to utilize the means now available for preventing postoperative pneumonia than they do to worry over the hazard of explosions, except of course the explosions due to carelessness. Indeed, the greatest advance for surgery that can be immediately effected is a decrease of the mortality from postoperative pneumonia. The most effective means of accomplishing this large decrease in mortality is by the use of those anesthetic and inhalation forms of apparatus that are necessary for the administration of such gases as nitrous oxide, ethylene, oxygen and carbon dioxide and which kill less than 1 patient by explosion for each 100 or more that they probably save from death by postoperative pneumonia.

To estimate the extent of the hazard from explosions with ethylene in anesthetic apparatus,

this committee is fortunately able to use the replies to a questionnaire on the subject, sent to 478 hospitals, each having 200 beds or over, in the United States.

CONCLUSIONS AND RECOMMENDATIONS

General anesthetics of the class of ether and ethylene form explosive mixtures with air, oxygen and nitrous oxide. But these mixtures do not explode unless fired. Ether is probably the agent in more minor explosions or flares than ethylene. But explosions of ethylene are usually the more violent, owing to the higher concentration in which this anesthetic is used, and may cause serious personal injuries besides damage to apparatus. With any inflammable anesthetic the wave of flame may invade the patient's lungs and cause ruptures and burns that result in death.

One of the commonest causes of serious explosions is the use of the cautery near the patient's head or in the pleural cavity during ether or ethylene anesthesia. Other causes of ignition are defectively wired headlights or sparks in the motors of suction apparatus, and in diathermy, radiology and other electric equipment.

Ethylene diffuses into the air very rapidly and with a corresponding decrease of concentration below the inflammable limit. The risk of an explosive mixture being carried for more than a few feet from the anesthetic apparatus and operating table is small. Ether, on the contrary, diffuses rather slowly and a current of its vapor may be carried by a draft for considerable distances with a resulting flare if the vapor reaches a cautery or other heated body spark. With neither anesthetic should the cautery be used anywhere around the head or pleural cavity. When the cautery is used in the abdomen, a screen should be placed to prevent any current of air carrying inflammable gas or vapor in that direction from the mask.

Rules against smoking and against any flame or open light should be strictly enforced wherever inflammable anesthetics are used. The electric equipment of the operating room, its lights, particularly the surgeon's headlight and other lights near the patient's face, and all suction, heating, radiology, diathermy and other apparatus, should be of such construction and should be kept in such good repair that no sparks can be produced. All electric apparatus should be so enclosed that the anesthetic gases and vapors cannot reach electrically charged parts. As such precautions virtually eliminate the hazards of explosions from all the causes here mentioned, surgeons and anesthesiologists should charge themselves with responsibility and care requisite to their elimination.

Explosions Initiated by Electrostatic Discharges. Explosions due to this cause are now largely fortuitous and may occur even when all obvious precautions are taken. Fortunately they are infrequent, but it is important that anesthetic apparatus should be modified or other means devised to eliminate this hazard entirely.

For full anesthesia, the concentration of ethylene is above the explosive limit. The chief risk of explosion comes when the ethylene is above the explosive limit. The chief risk of explosion comes when the ethylene is shut off and the patient's lungs and the apparatus itself are washed out with oxygen or oxygen and carbon dioxide. During this process the mixture of gases passes through the entire explosive range.

The mixtures of ethylene and oxygen used for

analgesia during labor are highly explosive and involve continual danger in apparatus in which electric charges accumulate. The most explosive combination is the 25% ethylene and 75% oxygen mixture that caused a death here cited.

The principal measure heretofore recommended to counteract this risk has been the grounding of the anesthetic apparatus. This, however, is probably of little value unless there are metal strips in the floor which are also grounded. Even this precaution gives at best only incomplete protection, for the most serious explosions are probably initiated by electric discharges of static electricity developed inside the anesthetic apparatus itself. Grounding considerably increases the danger of a short circuit from the electric illuminating current to the patient, the surgeon and the anesthesiologist.

Another precaution against sparks of static electricity is to keep the atmosphere of the operating room sufficiently moist to prevent the development of electric charges. A humidity of 55% is sufficient. There should be a hygrometer in every operating room. It should be read by the anesthesiologist before each operation. If the weather is not too warm, steam should be used to raise the humidity to the desired amount. This precaution decreases the risk of electric charges outside the anesthetic apparatus but not those inside the apparatus. Moistening the gases by bubbling them through water, and placing a wet sponge in the rebreathing bag are also inadequate to insure elimination of the interior charges.

The charges of static electricity which are the chief cause of explosions in anesthetic apparatus are developed by friction in the rebreathing bag. To overcome this risk, nonconducting rubber should be eliminated and so far as possible the entire apparatus should be constructed of metal. In particular, a small spirometer or a simple rebreathing chamber should be used in place of the rubber rebreathing bag.

This committee recommends that the American Medical Association provide, through its Council on Physical Therapy, for examination of anesthetic apparatus to determine its freedom from electric and other hazards.

The Compensating Advantages of Anesthetic Apparatus. In spite of the defects of anesthetic apparatus, particularly when used for ethylene, the hazard of explosion in apparatus for administering this anesthetic gas is statistically very small compared to such hazards as those of post-operative pulmonary complications consequent on methods of anesthesia until recently universally employed and still widely used. An anesthetic or an apparatus that is liable to occasional explosion, inducing perhaps 1 death in 100,000 or more anesthetics, is certainly preferable to modes of anesthesia free from the hazard of explosion but involving a hazard of several postanesthetic deaths for each 1000 anesthetics. Modern anesthetic apparatus permits accurate control of the administration of volatile and gaseous anesthetics, prevention of cyanosis by means of oxygen, prevention of apnea by rebreathing, rapid induction of anesthesia with nitrous oxide, rapid termination of anesthesia, and especially hyperventilation and full expansion of the lungs with carbon dioxide. This apparatus is thus the most effective means yet devised for counteracting the pulmonary complications which are the principal causes of postanesthetic fatalities. Explosion is statistically today the least of the hazards of anesthesia.

Public Relations

HOSPITAL COSTS

(Abstracted from a special article by Henry C. Mencken, in the Baltimore Evening Sun, reprinted in Atlantic City Press, June 2, 1930.)

Whenever efforts are under way to raise money for a hospital, as in the case now current of the Hospital for the Women of Maryland, the whisper goes about that all hospitals charge too much for their services, and not infrequently it is accompanied by speculations as to what they do with their profits. The answer, of course, is simple: *there are no profits*. And to the allegation that they charge too much there is an answer almost as easy. If life in them is expensive it is not because they are voracious, but because their customers are luxurious. Every person, falling ill, wants the best treatment obtainable, under the most comfortable and favorable circumstances. What surprises people is the discovery that the best costs almost as much in a first-rate hospital as it costs in a first-rate hotel.

The annual report of the Woman's Hospital is full of proofs of this luxuriousness. Last year 2032 patients were admitted to the 4 services—medical, surgical, obstetric and gynecologic—and in addition 553 babies were born; a total of 2585. The report does not say specifically how many of these patients were of the full-pay variety, but there is a hint that they ran to about half of the whole, or say 1250. Well, these 1250 full-pay patients seem to have spent almost half as much for special nurses, and the board thereof, as they spent for everything else they got in the hospital, from board and lodging to medicines, x-rays, bandages, telephone calls and the use of the operating room. And yet, under the heading of General Information, the report says categorically that "special nurses are *not* necessary" and adds that "patients in rooms at low rates may have [them] only in cases of extreme illness".

It is, of course, not strictly true that special nurses are not necessary. There are situations in which their services may mean the difference between life and death. But it must be plain that in a hospital with a daily average population of 50 full-pay patients there is scarcely need for the daily ministrations of 40 special nurses—and yet that is the number that the lady customers of the Woman's Hospital kept on the jump in 1929. How ill these Epicurean ladies really were may be ascertained by glancing at the statistics of the year. In the surgical service but 18 out of 890 were ill enough to die, in the medical service but 23 out of 475, and in the gynecologic service but 4 out of 1316. As for those who entered to be delivered of babies, not one did—and there were 553 of them.

The truth is that all good hospitals are run very economically, and that the Woman's hospital seems to be run even more economically than most. The patient using it actually gets something for every cent she pays. If her bill seems high, then it is because, being ill and in fear—and maybe eager to keep up with the Jones—she demands the best attention and the greatest comfort obtainable. That attention and that comfort naturally come high, for the persons who provide them must be fed and housed, but the cost is surely not beyond a fair price. It would be higher in a decent hotel, and it would be quite as high at home.

Illness costs more than it used to cost, not be-

cause doctors and nurses have suddenly turned brigands, but because sick people demand a great deal more service than they used to get. All of us who have passed 45 can remember the time when a person falling ill was nursed at home and by the household and servants. If there was need for further help, it came from relatives or the neighbors. No one thought of calling in professional nurses, for there were no professional nurses in service. If dressings were necessary, the family doctor somehow managed them. If it came to surgery, then very often the operation was performed at home.

No intelligent person would be content with such treatment today. The well-to-do go to hospitals the moment illness overtakes them, for they know by their own experience and that of their friends that they can get better attention there than at home, and at no more cost. The poor go because it is both more comfortable and cheaper. And those who are neither rich nor poor, in steadily increasing numbers, are doing likewise. Unfortunately, the ensuing bill often almost wrecks them. But that bill is heavy, not because hospitals charge more than they ought to charge, but simply because their customers demand a kind of service that is naturally and incurably expensive. They are wise to want it, but they are foolish to protest against its cost. The way out is not to try to shoulder that cost upon some one else, but to prepare for it in time. Does meeting it sometimes involve mortgaging the old homestead? Well, it is surely better to mortgage the old homestead than to be ill in the barbaric and horrible manner of 1890.

Even so, hospitals do not ask their pay patients to pay for everything they get. Strictly speaking, there is no rent: the hospital building is provided either by taxation or by philanthropy. If its cost had to be met out of income, then the Woman's hospital could not board, lodge and serve a pay patient for \$6, \$8 or \$10 a day, but would have to charge \$15 or \$25. Nor could nurses in training work for the small honoraria that they now get if they had to find lodging outside, and pay for it. Nor could hospitals operate at all if they were not equipped with expensive laboratories paid for by someone other than their patients.

A PHYSICIAN WHO LIVED 5000 YEARS TOO SOON

(Newark Evening News, July 12, 1930.)

Except for a few hundred men out of the billions who have lived and died since Cro-Magnon developed his frontal brain, we would today be sitting in huts, war-clubs within easy reach, gnawing our kill by torch-light. Experimenters and pioneers make discoveries which we slowly adopt. Horses were hunted for food for thousands of years before some one tamed a colt and invented transportation. We pride ourselves on a civilization which consists of imitation and appropriation of others' ideas.

A 13-year-old Boy Scout can set a broken leg, and the average fifth-grader knows the functions of the brain, the heart, the digestive tract. Yet within modern times the brain was regarded by anatomists as a gland secreting tears and nasal mucus. The heart, liver, bowels and kidneys were believed to be the seats of the emotions. The errors are perpetuated in our own every-day speech, when we call a man "heartless", or "white-livered", or say that this one "hasn't the guts".

And yet, 5000 years ago an Egyptian priest wrote a book, which has just been translated after

nearly 70 years' labor, in which the functions of the brain and the circulatory system were correctly set forth. Old Doc Imhotep made and used adhesive tape, splints, cauterants, astringents, antiseptics. He was ahead of his time. The public preferred sympathetic magic. Had medicine and surgery been permitted to march forward from that date, what might it not have attained today?

Sir Humphrey Rolleston, distinguished British surgeon, points out that the virtues of the recently discovered salts and vitamins in citrous fruits were discovered by James Lind in 1754. But he could not convince the British navy to eradicate scurvy among its seamen by rations of orange and lime juice until 40 years later. Anesthesia was demonstrated by Sir Humphrey Davy in 1799, yet almost up to the Civil War surgeons sawed off arms and legs while their assistants held down the screaming, conscious patient. Jean Denys practiced blood transfusion in 1667. The world would have none of such interference with the will of God, and not until 1907 did transfusion become a matter of hospital routine.

Education has made us amenable to experimentation and acceptance of new discoveries, not only in medicine, but in all spheres of human activity. We are becoming better imitators. Fear of hospitalization, distrust of doctors, are vanishing, although hundreds of thousands of our citizens, to whom airplanes and radio are accepted commonplaces, still put their faith in "hex" and "yarb" doctors. Imhotep lived too soon. The gap between layman and scientist grows narrower with the ages, and no discoverer of new principles today will be forgotten by this civilization.

In Lighter Vein

Coué Stuff

"George, dear, why do you shut your eyes so tight when you kiss me?"

"I'm trying to make myself believe you're Greta Garbo."—Denison Flamingo.

Pass the Hammer

Roger—"Mummy, I have such a surprise for you!"

Mummy—"What is it, darling?"

Roger—"I've swallowed a nail!"—London Passing Show.

Emily Post says it doesn't make any difference which fork you take. Maybe not at the table, but it certainly does on a road.—Louisville Times.

Divots to Spare

An English magazine is relieved to note that the crust of the earth is two thousand miles thick. "So in spite of the savage attacks of the golfers, geologically speaking they do little harm."—Boston Transcript.

No Casualties

"After the wedding Liza, did you throw old shoes at the couple?"

"Lawsey, no ma! we dun kilt a groom dat way las' week, so dis time de preachah say in de name ob humanity to eliminate dat from de ceremony."—Florida Times-Union.

Communications

THIRD GRADUATE FORTNIGHT OF THE NEW YORK ACADEMY OF MEDICINE

The New York Academy of Medicine is a center of medical information along all lines—scientific, literary, and historic, public health and popular health education. It is a clearing house of information regarding hospitals, and the operations and clinics held in them. Its medical library is one of the largest in the country and is open to physicians generally. If a reader wishes a copy of an article he may have a photostat of the article, including its illustrations, done for less than the cost of typing the article.

Election to membership in the New York Academy of Medicine is an honor to any physician, but generous endowments make it possible for the Academy to extend its benefits to physicians generally. Visiting physicians are invited not only to share in the professional benefits of the institution, but also to make the building at 2 East 103rd Street their headquarters where they may have their mail sent and where they may make appointments to meet their families and friends.

Two years ago the Academy extended its system of medical instruction by providing a 2 weeks' series of clinics and lectures called The Graduate Fortnight, on the general subject of the Diseases of Old Age. Its success encouraged the officers of the Academy to repeat the plan of the courses in 1929, taking as its general subject "Functional and Nervous Problems in Medicine and Surgery". The afternoon clinics in 1929 were crowded and the average attendance at the evening lectures was 545 by actual count.

The Graduate Fortnight will be repeated this year on the general subject "Medical and Surgical Aspects of Acute Bacterial Infections". The committee in charge of the Fortnight consists of Dr. Harlow Brooks, Chairman; and Drs. F. W. Bancroft, Ludwig Kast, Emanuel Lidman, and H. F. Shattuck, his associates.

The dates are October 20-31 inclusive. The clinics will be held in the afternoons, and lectures in the evenings.

The places are: (a) The amphitheatres of 10 of the largest hospitals in the city, for the afternoon clinics. (b) The large Assembly Hall of the Academy for the evening lectures.

The price—free. The Fortnight is the contribution of the Academy to the medical profession. The only restriction is that tickets, which may be obtained at the Academy, will be required for the afternoon clinics, owing to the limited capacity of the amphitheatres in which they will be held.

An added feature of the Graduate Fortnight this year is an exhibit of research material and specimens—anatomic, bacteriologic, and pathologic—of infections. This exhibit will be held in the Academy Building.

The plans of the Fortnight leave mornings free for the usual operative clinics which are held daily in the hospitals and to which visiting physicians are cordially invited. The Academy keeps an up-to-date list of the clinics in all hospitals of the city and publishes it in a daily Bulletin which will be sent free during the Fortnight to all who apply for it.

A 24-page folder has been prepared, giving an outline of every lecture and the details of the clinics. It lists 25 speakers on the evening programs, and 121 lectures at the afternoon clinics.

Copies of this folder have been mailed to every doctor in New York State, and also to all physicians in New Jersey, Pennsylvania and Connecticut, within a radius which may be considered as the Metropolitan area.

VIOLETIONS OF THE MEDICAL PRACTICE ACT

(A report from Dr. James J. McGuire, Secretary of the New Jersey Board of Medical Examiners.)

The following is a list of the Board's prosecutions since our last report:

Mar. 20, 1930, Anna Cloud, a Spiritual Advisor, of Trenton, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

April 21, Alice R. Owston, of Jersey City, was tried on a charge of practicing medicine without a license. She gave colonic irrigations and also prescribed drugs. After hearing the first witness testify for the state, her attorney pleaded her guilty and paid the penalty.

April 1930, Leonard J. Jones, who conducts the Leonard Health Offices at 9 Park Place, Newark, and who advertised extensively in the newspapers, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

April 24, Charles De Rosa, of Lodi, a druggist, was found guilty of practicing medicine without a license.

April 24, Mabel E. Manahan, of Englewood, who conducts the Mabel E. Manahan Sanitarium, was found guilty of practicing medicine without a license. Mrs. Manahan prescribed diets and drugs, administered drugs and gave electric treatments.

May 8, Herbert Coenen, who conducts the St. Paul's Home for the Aged at Pompton Lakes, pleaded guilty to a charge of practicing medicine and paid the penalty.

In May 1930, Anna Stillwagon, of Trenton, paid the penalty for practicing medicine without a license. Mrs. Stillwagon manufactures a rheumatic remedy which she prescribed for all conditions.

June 2, Michele Micucci, of Lambertville, was found guilty of practicing medicine without a license. He was unable to pay the penalty and was committed to the Hunterdon County Jail for 10 days.

June 3, John L. Corish, who was connected with the Theronoid Company of Newark, paid the penalty for practicing medicine without a license.

June 3, Robert W. Rogers, an osteopath of Plainfield, paid the penalty for practicing medicine without a license.

In June 1930, Frederick W. Budde, an unlicensed chiropractor of Newark, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

June 3, George Maza, an unlicensed chiropractor of Newark, was found guilty on a second charge of practicing medicine without a license.

June 5, George D. Herring, an osteopath of Plainfield, paid the penalty for practicing medicine without a license.

June 19, Ernest R. Brown, an unlicensed chiropractor of Beverly, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

June 23, Anna F. Citarella, an unlicensed chiropractor of Glen Ridge, was found guilty of practicing medicine without a license. The evidence submitted to the court covered electric treatments

and also showed that she had a sanitarium with surgical equipment.

June 25, Caroline Seving, also known as Caroline Nilsson, of Atlantic City, was found guilty of practicing medicine without a license. She was unable to pay the penalty, and it was a second offense. The Judge committed her to jail for 60 days.

In June 1930, Della Dayton, who specialized in giving colonic irrigations, paid the penalty for practicing medicine without a license.

June 12, Harry Lieb, of Seaside Heights, and Arthur Rovner, of Toms River, druggists, each paid the penalty for practicing medicine without a license.

On April 17, the license to practice medicine and surgery of Henry W. Thayer, of Bloomfield, was revoked by the Board.

On July 10, the license to practice medicine and surgery of Vincenzo Reno was revoked by the Board. The charge on which the license was revoked was that Dr. Reno had presented a diploma which had been illegally obtained and which had been signed and issued unlawfully and under fraudulent representations.

On July 10, the license to practice medicine and surgery of Samuel C. Husbands was revoked by the Board for conviction of a crime involving moral turpitude. The evidence showed that he had been indicted and convicted for unlawfully selling narcotic drugs.

On July 10, the Board reinstated the license to practice medicine and surgery of Israel E. Rudman, which had been revoked on September 19, 1929.

On July 10, the Board restored the license to practice midwifery of Mary Yerkofsky, which was revoked on October 11, 1928.

PRIZE AWARD

At the recent meeting of the American Association for the Study of Goiter at Seattle, Washington, Dr. William F. Rienhoff, Jr., of Johns Hopkins University, Baltimore, Maryland, received the annual award of \$300 for the best essay dealing with the goiter problem. Drs. O. P. Kimball, of Cleveland, Ohio, and E. P. and D. R. McCullagh, Cleveland Clinic Foundation, Cleveland, Ohio, and Robert P. Ball, of the University of Louisville, received honorable mention.

Woman's Auxiliary

"THE WOMAN'S AUXILIARY OF THE STATE MEDICAL SOCIETY"

(The President of Wisconsin State Medical Society published in the April issue of his State Society Journal a letter so fitting for consideration by all our state organizations that we take the liberty of reproducing it here.—Ed.)

To those not acquainted with the auxiliary as contemplated and as seen in operation in other states may I say that the new organization is, to draw its membership from the wives, daughters and mothers of physicians who are members of the State Society. Women physicians are not eligible to the auxiliary.

Many of the members of our State Medical Society, on hearing for the first time of a Woman's Auxiliary, were not especially thrilled by the prospects of another organization, even though they themselves did not appear to be directly concerned.

In fact not a few are ready to confess that the idea did not appeal to them in the slightest degree. I believe that this reaction is a perfectly logical one, entirely in line with a commendable desire to curtail unnecessary society activities, rather than to increase them. The "organizer" will always be with us, ready and willing, to launch a new society for the aid of, or for the prevention of something or other. However, the innate desire "to belong" appears to be fully gratified in most humans in this year of 1930.

The writer has, for a long time, been aligned on the side of those who wish to see careful scrutiny exercised, to detect organizations which may be safely eliminated without loss and to prevent, or at least to avoid participation in, the formation of new societies which have insufficient grounds for existence.

Armed with this strict measuring rod, I am sure that many of us braced ourselves, to ward off advances made in behalf of the new auxiliary organization, but are ready to admit that our resistance broke down before the arguments of those who had studied the development, the purpose, and the possibilities of this, to us, new movement.

The one thing which alone would justify putting the breath of life into the new organization, is the fact that through the influence of its members, enlightened as they would be upon the subjects of preventive medicine, of public health and welfare and upon questions of economic importance, as they relate both to the profession and to the public, the understanding and education of the public in these matters will be fostered and advanced, through the contacts and influence of the members of the auxiliary with other organizations.

Fortunately what is in the interest of public welfare is usually also in the interest of the profession. Where possible conflicts exist, these may be more apparent than real, but in any case the public welfare always comes first. What we need as a profession is a closer contact with the public. Our aims and ideals will bear inspection. Our efforts in preventive medicine are widely recognized and generously appreciated and should be sufficient to disarm thoughtless criticism.

One further point deserves emphasis, and that is that the women of our state have not initiated this movement. They have not injected themselves into the situation. Their support has been solicited because the value of their influence in the capacity previously outlined, has already been proved by the results in 33 other states.

Union County

Reported by Mrs. R. A. Shirrefs

July Meeting

The Woman's Auxiliary to the Union County Medical Society met Wednesday afternoon, July 9, at Bonnie Burn Sanatorium.

Due to July being a vacation month, the attendance was small. In the absence of a speaker, many matters were thoroughly gone into and discussed at length. It was the sense of the meeting that 4 meetings a year were not enough for sustaining interest and that a few be added as a social feature. Plans were formulated and left in the hands of the Entertainment Chairman, Mrs. George L. Orton, of Rahway.

Three new members were officially enrolled: Mrs. Arch. M. Paulson, Mrs. Edgar M. Weigel, and Mrs. A. Strom, all of Plainfield. The auxiliary has an enrollment of 63 members.

Mrs. H. V. Hubbard, the President, adjourned the meeting till October, after which a tour of grounds and buildings was made. Some of the members joined the doctors in a clam-bake at a nearby restaurant.

County Society Reports

ATLANTIC COUNTY

Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

Dr. Walter B. Stewart of the Pediatric Service presented a report as follows:

An analysis of the pediatric service of 1929, covering the 6 months of April to June, and October to December, shows that during this period 66 cases were admitted to the ward, 31 in the second quarter of the year and 35 in the fourth quarter. There was an equal number of acute pulmonary and of nutritional conditions, 12 each; upper respiratory infections and chronic diseases numbered 9 cases each; gastro-intestinal conditions and acute infections 7 each; various other conditions claimed the 10 remaining cases.

There were 8 deaths, in 4 of which autopsies were obtained by the resident on service. The causes of death were as follows: 3 of meningitis (meningococcus, tuberculous and type undetermined); 2 of acute gastro-enteritis; and 1 each of generalized tuberculosis, rumination and bronchopneumonia.

Certain of the cases are of sufficient interest to call to your attention:

(1) A white female infant, aged 3½ months on admission, who remained in the children's ward of this hospital for 4 months, and then was transferred to the University Hospital of Philadelphia for further treatment. A pulmonary condition was present which offered diagnostic difficulties until finally it was pigeonholed as a congenital atelectasis. She had been admitted to the Atlantic City Hospital because of bleeding from unexplained ulcers in the large intestine, which was controlled by transfusions and rectal instillations. Streaks of blood were observed frequently in the stools for the next 2 months. The child presented a difficult feeding problem, being fed by gavage during this period. There was no gain in weight in these first 2 months. Except for the undernutrition and signs of moderate rickets and a rapid rate of respiration (60-80) there were no other physical defects. Almost imperceptibly during the 4 months in the hospital an inspiratory retraction of the lower end of the sternum was developing which eventually caused a marked depression. There had been a gain in weight of 2 lb. finally, and the general condition was much improved, but a slight fever was developing. A diagnosis of retropharyngeal abscess was made, but since the abscess could not be located by the laryngologist, the infant was sent to Philadelphia. While en route she coughed up a large amount of pus, the result of a spontaneous rupture of the abscess. One can only speculate as to whether it was the result of the repeated irritation of the pharynx in the passing of the stomach-tube during gavage. Radiograms of the chest made on admission and again before transfer showed a considerable shadow at the base of the right lung. A note made on the report of the second film read: "There is a possibility that this shadow may be

the lower lobe of the right lung which has not completely expanded."

In Philadelphia Dr. Gittings considered it a very unusual case and substantiated our diagnosis. The chest retraction and the tachypnoea of about 60 to the minute persisted unchanged, although there was no further evidence of retropharyngeal accumulation. Syphilis and tuberculosis were excluded definitely from the etiologic possibilities. The child was discharged from the University Hospital after several months of observation with the final diagnosis of congenital atelectasis. At present she shows the same clinical signs and is in an extremely poor nutritional condition. The prognosis is practically hopeless.

(2) The next case is of especial interest in that it presents the unusual condition of renal tuberculosis in a child of 4 years, the outstanding lesion in a case of generalized tuberculosis. The patient, a colored boy, was admitted 5 weeks before his death complaining of dysuria and hematuria. No family history or contact history of tuberculosis. The symptoms set in 3 weeks before admission. He complained of pain in the lower part of his back and in the flanks. There was a rapidly increasing emaciation. The temperature averaged 101-102°, there was much pus and blood in the urine; the phthalein excretion was 40% in 2 hours; the blood urea was 36 mgm. %; intradermal tuberculin 1.0 mgm. was positive; cystoscopic examination showed marked bullous edema of the entire base and posterior wall of the bladder, with ulceration of the mucosa. Two weeks before death a consolidation developed in the upper lobe of the left lung, and a radiogram revealed a diffuse miliary tuberculosis. The emaciation and the dehydration became extreme. He became weaker, vomited frequently, and finally died. He did not cough at any time. Autopsy showed an extensive tuberculosis of both lungs, numerous peritoneal tubercles, calcareous nodules in the spleen, and extreme tuberculous changes in the kidneys. One kidney had been converted into a large sac of pus; the other had a greatly dilated ureter.

(3) The third case is one of rumination in a low-grade idiot, aged 10 years, which had been present in mild degree since birth. During the past several months the rumination was almost constant, so that all food and water taken into the stomach was chewed up into the mouth and out. Chewing movements of the jaws would set in a short time after the taking of food, and would result in the raising of food, no matter how thick, into the throat and the mouth. Mechanical restraint of the jaws and even sedatives were ineffectual. The emaciation and dehydration were so extreme that at the time of admission he weighed 25 lb. at the age of 10 yr. Frequent intraperitoneal injections of normal salt solution were of only temporary benefit. He died 18 days after admission. This condition of rumination or cud-chewing is called *mercyismus* when it occurs in human beings as a pathologic process. It is an involuntary habit which may be acquired by imitation, or may follow stomach disturbances or some other illness. Usually it occurs in neurasthenic or hysterical persons, epileptics and idiots.

(4) The next case is one of failure to respond to serum therapy in meningococcus meningitis. The first symptoms developed 3 weeks before death, consisting of fever, cough and abdominal distention, which led to a diagnosis of intestinal gripe. Not until 1 week later did the first symptoms of meningitis develop. During the second week the physician in charge, in a small country

town, failed to use lumbar puncture in his treatment of the case because he thought it was improving spontaneously. In the hospital serum therapy was started at once. Very little fluid could be obtained from either the spinal or the cisternal punctures. Hence only very small amounts of serum could be introduced, the anterior fontanelle being closed. Serum was given intravenously on several occasions. At autopsy the membranes of the spinal cord were found tightly plastered to the cord itself by a thick exudate which prevented access of the serum and undoubtedly accounted for its failure. The chief moral to be gained from this case is to avoid delay in hospitalization when meningitis is suspected.

Casual mention will be made of a few other interesting cases which occurred in this service: (1) one of acute infectious mononucleosis; (2) one of rheumatic myocarditis with death in 6 weeks after the onset of the first attack of acute rheumatic fever; and one of tuberculous meningitis, unusual in the complete absence of meningeal signs during the first 2 weeks during which there was fever often reaching 106°, severe headaches and occasional vomiting spells, without his being confined to bed.

Pine Rest Sanitarium

Harry Subin, M.D., Reporter

The regular monthly meeting of the staff of the Pine Rest Sanitarium was held at the institution on August 14, 1930. Minutes of the previous meeting were dispensed with. There was no old nor unfinished business discussed.

The scientific portion of the meeting was opened by the reading of a paper by Dr. Harry Subin on the subject of "Highlights in the Life of Robert Koch".

The members present at the meeting were: Drs. Hudson, Kilduffe, Pennington, Subin, Marcus, Guion, McGeehan, Fish and Allman. The guests of the evening were: Drs. Stamps, Nickman and Reeves.

Obituaries

FORMAN, Archibald C., of Bayonne, died August 20, 1930, at his home, 41 West Thirty-second Street, after a long illness. Funeral services were held in the First Reformed Church, Rev. George J. Becker officiating. Burial was in Old Tennent Cemetery.

Dr. Forman, who was 65 years old, was brought to his home 5 weeks ago from Ocean Grove, where he and Mrs. Forman planned to spend the summer.

Born in Englishtown, he was graduated from Freehold High School. He received his medical degree from the Medical School of New York University in 1895. He served as an intern at Bayonne Hospital and has practiced here since.

Dr. Forman served as health officer for Bayonne for several years and in 1907 was Democratic candidate for Mayor, when he was defeated by Mayor Pierre P. Garven, who was seeking reelection on the Republican ticket. He was a director in the Bayonne Trust Company and Centerville Building and Loan Association, besides serving on the board of Directors of the Bayonne Hospital.

OFFICIAL TRANSACTIONS

164th Annual Meeting of the Medical Society of New Jersey

Held at Atlantic City, June 11, 12, 13, 14, 1930

HOUSE OF DELEGATES

Wednesday Morning Session

June 11, 1930

The first session of the House of Delegates at the One Hundred and Sixty-Fourth Annual Meeting of the Medical Society of New Jersey convened in the Viking Room, Haddon Hall, Atlantic City, New Jersey, at 11 a. m., with President Andrew F. McBride in the chair.

President McBride: It is a great privilege, as well as a wonderful pleasure, to be able to welcome the members of the Medical Society of New Jersey to this, the one hundred and sixty-fourth anniversary of the founding of the society. I trust that this convention will be on a par with all of those that have preceded. I feel certain that the meeting will be of inestimable value to the members of the society and to the public generally.

The Committee on Program and Arrangements has given us a very fine program, and I hope that every member of the society will attend all of the sessions so that the men who come here to present papers, and others who come to discuss them, will have the benefit of a full attendance. This society has held a very high place among the medical societies of this country, and I am sure that our very high standard is going to be kept up continuously and that the society is going to grow in importance and influence as the years go by.

I am now going to call for the reading of the minutes of the 1929 meeting.

Dr. W. G. Schauffler (Princeton): I move, as the minutes have all been printed in the Journal, that the reading at this time be dispensed with.

The motion was seconded and carried.

President McBride: The report of the Committee on Arrangements and Program, Dr. M. W. Reddan, Chairman. He is not here. We will have that later.

The Report of the Committee on Scientific Work, Dr. Hollinshed.

Dr. Ralph K. Hollinshed: Mr. President,

we are presenting a very full program this year. I want to give credit to Dr. Ireland for compiling and taking charge of the meeting for school physicians, as well as getting together their program; to give credit to Dr. E. G. Hummel, of Camden, for the program on Pediatrics; and Dr. Linn Emerson, of Orange, deserves thanks for the program on Eye, Ear, Nose and Throat work. We sincerely hope that you will enjoy these meetings.

President McBride: We will now have the report of the Board of Trustees, Dr. Hunter, Secretary.

Report of the Board of Trustees

June 11, 1930.

To the House of Delegates of the
Medical Society of New Jersey.

Gentlemen: At the close of the last Annual Meeting, according to custom, the Trustees held a meeting for reorganization, and the following officers were duly elected: Chairman, Dr. Lucius F. Donohoe; Secretary, Dr. James Hunter, Jr.

On October 27, 1929, a special meeting of the Board was held at Trenton to consider time and place for the next convention of the society and to discuss a question that had arisen regarding insurance of members. It was decided to hold the meeting at Atlantic City, and the dates selected were June 11 to 14 inclusive. The insurance problem had to do with alleged misconduct on the part of an agent of the Insurance Company who had not properly accounted for some premiums paid in by members of this society. A committee consisting of Drs. Morrison and Pinneo was appointed to negotiate with that and other companies for continuance of the Health and Accident Insurance plan and to establish a more reliable method of recording premium payments.

The Treasurer reported having invested the sum of \$700, received from sale of a Chicago and Alton R. R. bond, in the Investment Title Guaranty Mortgage Company. He also reported that the Committee on Program and Arrangements for the annual meeting of 1929 had managed to make its receipts practically cover the expenses of the convention, there being a deficit of only \$2.

On the evening of June 10, 1930, the Trustees again met to pass upon routine matters of business, the principle items being: Endorsement and provision for payment of an account rendered by legal counsel to the society, Mr. Colie; approval of a request submitted by the Tuberculosis League of New Jersey for the mailing of

literature with the Journal, the cost of such mailing to be borne by the League; appointment of a special committee to consider a proposition to have the society establish its own plant for printing the Journal—the committee later reporting adversely upon this proposition.

Upon motion of Dr. Lathrope, seconded by Dr. Wilson, the following resolutions were unanimously adopted:

RESOLVED THAT, in view of certain practices which have arisen in the past 2 years in connection with active campaigning for nominees for the office of third vice-president in this society, the Board of Trustees desires to go on record as deprecating the said practices as tending to detract from the dignity of the office.

RESOLVED further that the Board of Trustees does not feel that such matters come properly within the scope of rules and regulations, but that campaign activities must be governed by a sense of fitness and of the high conduct of our affairs; and to that end hereby recommends to the House of Delegates that an expression of disapproval be given to the following and similar methods of securing nomination for the office of third vice-president, or for any other office in the gift of the society, viz.: (1) the writing of campaign letters; (2) the solicitation of nominating committee members by outside counties in any way whatsoever; and (3) the undue use by officers of the society of their official positions toward influencing nominations or elections.

The above resolutions are respectfully submitted by the Trustees for your consideration.

James Hunter, Jr.,

Secretary.

President McBride: You have heard the report of the Board of Trustees. What is your pleasure?

Dr. W. E. Darnall: I move its adoption.

Dr. Arcangelo Liva: According to the by-laws, "All questions of an ethical nature shall be referred to the Judicial Council without discussion". I move that these resolutions be referred to the Judicial Council for further discussion.

The motion was seconded.

President McBride: I wonder whether this is a question of ethics.

Dr. Liva: Section 4 of Chapter VII of the By-Laws specifically says: "All questions of an ethical nature shall be referred to the Judicial Council without discussion. It shall consider and decide all questions of discipline affecting the conduct of members. It shall consider all questions involving the rights of members, whether in relation to each other, to component societies, or to this society."

I don't see what else it can be except a question of ethics.

President McBride: I would like to have the House of Delegates decide that question. All those who think that this matter should

be referred to the Judicial Council please signify by saying "aye"; all those opposed please signify by saying "no". The "noes" have it.

There were calls for a rising vote.

President McBride: All right.

Dr. Liva: My point of order was raised on the adoption of the resolution presented by the Board of Trustees.

President McBride: That is what I am talking about. All those in favor of referring this matter to the Judicial Council, please stand; all those opposed will please stand. (After counting) The "ayes" have it; the motion is adopted.

Dr. Hollinshed: I would like to suggest that the gentleman who made this motion shall come forward so that the Stenotypist can get it and so that the rest of the men can hear it. I don't think they heard it, and I don't think they knew what they were voting on.

Dr. Liva: The Board of Trustees has just presented a report including a resolution deprecating the practices of candidates canvassing for the third vice-presidency. It seems to me that resolution absolutely concerns the ethics of the State Medical Society. And since, according to Chapter VII, Section 4, of the By-Laws says that "All questions of an ethical nature shall be referred to the Judicial Council without discussion", therefore, there should be no discussion in this case. I fail to see what else the resolution refers to except ethics.

President McBride: Does the House of Delegates understand it now?

Dr. Hollinshed: Mr. President, the Section referred to speaks of members themselves. The probabilities are that if there has been any campaigning it has not been done by the men put forward by Campaign Committees, so to speak.

President McBride: We will now vote on the question again so there cannot be any misunderstanding. Dr. Liva explained his motion. All those in favor of having this matter referred to the Judicial Council stand up, please? All those opposed, please stand up? The motion is carried to refer to the Judicial Council.

We will now hear the report of the Committee on Publication, Dr. E. J. Ill, Acting-Chairman.

Dr. E. J. Ill: On account of the sad death of our good friend, Dr. Bennett, it becomes my duty to present this report:

**Report of Publication Committee,
June 1, 1929 to June 1, 1930**

RECEIPTS

Balance on hand May 31, 1929	\$ 555.25
Advertising (including A.M.A. rebate \$323.72)	11,035.78
Subscriptions (extra)	42.15
Sale of Journal (extra copies) ..	9.97
Bills Receivable	711.75
Cash on hand June 1, 1930	509.91
Subscriptions Account—Society Members	2,541.00
TOTAL	\$15,405.81

EXPENDITURES

Commissions paid (Coöperative) ..	\$827.54
Amount of Commissions O.K'd local canvassers	438.20
Discounts paid	234.23
Chairman's Salary	500.00
Chairman's Expenses	137.83
Printing and Mailing of Journal O.K'd	12,868.45
Reprints O.K'd	171.00
Index	135.00
TOTAL	\$15,312.25

COMPARATIVE STATEMENT

	1928-1929	1929-1930
Advertising receipts	\$10,113.99	\$11,035.78
Subscriptions (regular)	2,464.00	2,541.00
Subscriptions (extra)	34.50	42.15
Sale of Journal	28.44	9.97
Printing & Mailing Journal ..	11,693.21	12,868.45
Reprints	198.00	171.00
Commissions	861.86	1,265.74
Discounts	210.97	234.23

SUMMARY

Amount of advertising secured by Co-operative	\$4,372.10
Amount of advertising secured locally	4,845.99
Amount of discount and commission allowed Coöperative	1,014.72
Amount of discount allowed locally to advertisers	47.05
Amount of Commission O.K'd local canvassers	438.20
Total amount of advertising	9,218.09
Total cash receipts from all sources	8,134.59
Total amount paid Treasurer	8,222.12

Respectfully submitted,
Edward J. Ill,
Acting-Chairman
Publication Committee

President McBride: You have heard the report of the Publication Committee. If there is no objection, it will take the regular course.

Will Dr. Reddan kindly report for the Committee on Arrangements and Program now?

Dr. M. W. Reddan: This is simply a preliminary report. I want to call your attention to the fact that the arrangement of the booths seems to meet with general approval of the exhibitors, making a more systematic

and better-looking exhibit room. While I don't know the exact figures, I can tell you that all the expenses, including all the social activities, that is, the dinner dance, the entertainment features, and the card party for the Auxiliary, are covered by the Committee on Arrangements.

In regard to ads for the program, this year we solicited just enough to cover the expenses of the program. We didn't go into an extensive advertising campaign. We were after quality rather than quantity, and everything in here has been vouched for by official authority.

President McBride: If there is no objection, this report will be received and take the usual course.

The report of the Committee on Constitution and By-Laws, Dr. Quigley, Chairman.

Dr. Frederic J. Quigley: The report of this committee is brief. There is one action to be taken before the Nominating Committee meets. Article VII of the new Constitution requires the House of Delegates to organize 5 councilor districts and assign the various counties to those districts. It will be necessary, therefore, to introduce a resolution under "Unfinished Business" recreating the 5 judicial districts as they were formerly constituted, and I shall do that this afternoon at the proper time.

Last year, when we presented our report on By-Laws, we said that we did not feel that we were presenting a perfect instrument. We are more of that opinion today than we were last year because the committee has already found several matters of minor importance that might be improved. On the whole, we do believe that the Constitution and By-Laws are workable instruments, and the Committee suggests and earnestly recommends that during a period of 2-3 years—a period which we believe will be sufficient to see whether the Constitution and By-Laws are workable—only amendments which are absolutely essential be introduced. In the meantime, the Reference Committee on Constitution and By-Laws, which I presume the Chair will appoint, may be created a special committee, and the members from time to time present suggestions as to necessary changes which can then be considered in reference to each other and to the Constitution and By-Laws as a whole, with the result that undoubtedly better amendments are finally going to be offered than where just "snap" amendments are offered from the floor.

There is one other matter that we believe should be referred to the Reference Committee for interpretation, and that is the matter of what constitutes the first and second days

of the annual meeting. There is some confusion as to interpretation, and we believe that it shouldn't be left to varying interpretations but should be decided definitely by this House of Delegates; so, we would suggest that this matter be referred to the Reference Committee on Constitution and By-Laws.

President McBride: If there is no objection, this report will take the usual course.

We will now have the report of the Recording Secretary, Dr. Morrison.

Report of the Recording Secretary

To the Officers and Members of the
Medical Society of New Jersey:

We open today the 164th Annual Convention of our venerable society.

Our total membership last year up to the end of October was 2595
Names on the Official List for 1930 2195
New and reinstated members since that date 347
Number of deaths 24
New members elected during the year 140

It was feared that the increase in dues last year would materially affect our membership. Our lists today show 53 members less than last year, or 2% less, but this will be more than made up during the summer months, so that by October 1 our membership will undoubtedly be in excess of last year.

At one of our component society meetings this spring I talked at considerable length on the necessity for the increase in dues and I have been requested to have that talk published in the Journal. I shall do this in the autumn just prior to the time for sending out next year's bills. It should meet the objections of every member who has criticized the action of this House of Delegates in making this increase.

We have lost by death this year 24 members. In this list were some of the most prominent members of this House of Delegates. Dr. Frederick W. Flagge, of Rockaway, Morris County, was long one of our most regular attendants and was one of the most highly esteemed members of the Morris County Society. Dr. Edward Staehlin, of Newark, Essex County, for many years a Permanent Delegate to this society, was one of our valuable counselors to whom I frequently went for advice. He was one of the most prominent surgeons in New Jersey and his death leaves a void in many circles in Essex County. Dr. Walter S. Washington, of Newark, was also one of our oldest Permanent Delegates, regular in his attendance at these meetings, and his kindly personality will long be remembered by those of us who were associated with him. Dr. Charles D. Bennett, for many years a Permanent Delegate from Essex County, and Chairman of the Publication Committee from 1919 to the present year, was one of our most valuable servants. Racked by pain and physical suffering which would have induced most of us to give up all public service, he managed the business affairs of our state Journal with efficiency and economy during all the long years of his incumbency of that office. His funeral service, attended by more than 200 friends, was a marked tribute to his memory.

I have attended this year 26 county society meetings in 19 out of our 21 counties. It is a pleasure to report a continuation of the marked interest in the affairs of this state society, and in

organized medicine in general, which has characterized the county societies during the past few years.

It is necessary at this time to call your attention to the marked increase of interest in industrial medicine and contract practice in New Jersey during the past few years, and to recommend to the incoming president that he appoint a committee to make a study of the situation for a year and report back to this body at our next meeting so that the House of Delegates will be able to recommend to the component societies a course of action to be followed in the future.

So much dissatisfaction has been expressed with the Official List this year that it becomes necessary to explain my actions in the matter. Under the old by-laws the apportionment of delegates was made every 3 years. Under the newly adopted by-laws they are apportioned every year. Referring to page 12 of the By-Laws, section 2, we find the following: "*February the first in each year is the final date for closing of the Official List.*" Five days before this date the treasurer of each component society shall forward to the treasurer and to the secretary of this society a complete list of all paid-up members with correct addresses. *After this date (February 1) no names shall be received for the Official List."*

So, you will observe that this is no unjust or dictatorial ruling of mine, as has been implied in some of the correspondence over the matter. I am simply living up to the provisions of the new Constitution and By-Laws which make it *mandatory* for me to close the Official List on February first. I have no option in the matter. This provision was made so that there would be a definite time for apportioning the delegation of each component society. For several years some of the component societies have been 100% paid-up at this date, and some of the largest societies in the state are listed in this group. There is no good reason why they should not *all* be in this class.

Since February first, I have added 347 names to the roster of membership in our society but the component societies will not receive credit for them in next year's apportionment. These members are reinstated, are in good standing, and have all the privileges of membership in this society.

To become reinstated the member must remit his dues to the county society treasurer who, in turn, should forward them immediately to the treasurer of the state society. Names are then sent to me, recorded on my files, and forwarded to the American Medical Association and to the Publication Committee for addition to the mailing list of the Journal.

You will notice that there is no leeway provided in the new By-Laws for the payment of dues after January 26; all dues are payable on January 1 but may be paid up to the period of 5 days prior to February 1. This leeway of 5 days is allowed for transit in the mails to the treasurer of the state society and return to me. It is my intention to send out stickers to the treasurers of the component societies next autumn, to be attached to all bills rendered, stating that if dues are not paid prior to January 26 the names will not appear on the Official List, and that good standing will be lost in the state society and in the A. M. A.; and the names will not appear on the revised mailing list for the Journal.

The Committee which the Governor of the state appointed 3 years ago to prosecute the immunization of our children against diphtheria has been

actively at work during this period. We have reason to believe that, in conjunction with the State Board of Health and the Department of Education, we have succeeded in immunizing about 500,000 children. The state has been fairly organized on a county basis, with local units in many counties. A mass of educational publicity has been put forth. The Committee therefore recommends that we disband and return to the State Medical Society, the State Department of Health and the Department of Education the further prosecution of this work. It would seem now that the school problem has been accepted as a legitimate activity, and since the solution of this problem depends on the immunization of pre-school children, who can only be adequately handled in private practice, that the State Medical Society, through its constituent societies, should continue the agitation. No other agency in the state can effectively reach the parents of the children and impress upon them the necessity for immunization. May I add that a very large proportion of the work has been cared for in private practice and, apart from the vast protection to the public, it is the belief of this Committee that the medical profession could easily have a return of \$250,000 a year from the prosecution of this endeavor. The county units referred to are all headed up by physicians who have actively assisted the Committee and we believe that, in the light of our experiences, the entire state can easily be freed from the ravages of diphtheria. In closing our 3 years' work we extend our heartiest thanks to the State Board of Health, the State Board of Education, the Prudential Life Insurance Company, the Metropolitan Life Insurance Company, to Mrs. Percy Ingalls, of East Orange, to Miss Edith Stuckey, of Newark, and to the many friends whose contributions made it possible to carry on this great work for the children of New Jersey.

Respectfully submitted,

J. B. Morrison,

Secretary.

President McBride: Before passing upon the report of our Recording Secretary, I am going to ask the House of Delegates to stand for a moment in respect to the memory of departed members of this society who left us during the past year.

The audience arose.

President McBride: You have heard the report of the Recording Secretary and the recommendations made. What is your pleasure?

Dr. A. H. Lippincott: I move that the report be accepted with the recommendations.

The motion was seconded and carried.

Dr. W. P. Eagleton: As I understand from Dr. Morrison, there are 300 and some odd members whose names have been published in a supplementary list. These men paid their dues after the first of February, and, as I understood from him, he proposes not to allow those 300 to go into the allotment of delegates to the different counties for next year. Now, we are a body of doctors. We are not trying to outmaneuver each other. We are not making rules with the idea of depriving

any man of his privileges, and it seems to me that as long as these men have appeared in a supplementary list they should be added to the "official list" and the counties should be allowed the same representation as if they had paid before that date. Dr. Morrison says it is compulsory on him to take the action reported, but the fact is that these 300 and some odd names have been published. Now, admitting that they have paid before this date of meeting, to deprive them of the privileges and also to deprive the counties of their representation does not appear to me to be good policy.

Dr. E. R. Mulford: According to the Constitution and By-Laws, as adopted last year, there cannot be any further consideration of those names that have been dropped. Is that right?

President McBride: That is the understanding.

Dr. Mulford: There would have to be an amendment to the Constitution and By-Laws before there could be any reconsideration of those names.

President McBride: In my judgment that is correct.

Secretary Morrison: There is nothing new in this situation at all. For the last 7 years, ever since I have been in this office, the condition has been practically similar, although there have not previously been so many delinquents as this year. Possibly the increase in dues kept some of the men from sending in their dues for a considerable length of time, but for 7 years that provision has been in the Constitution and By-Laws—that there was a definite date for closing the official list, and that the official list as published must be the basis of representation of the county societies. There is nothing new in this at all. If Dr. Eagleton's proposition were to be accepted, then December 31 would have to be the time for closing the official lists, and all members who were delinquents and paid their dues between the first of January and the thirty-first of December would have to be accepted.

Dr. N. W. Wilson: May I ask why the date was set February 1? Why couldn't it have been March 1?

Secretary Morrison: It could have been. It can be changed any time. It was put February 1 because the American Medical Association pushes us for the membership at the earliest possible date after it is collected.

Dr. H. Alexander: Inasmuch as there seems to be a little difference of opinion as to the justice of this action, (I perhaps shouldn't use the word justice because the Constitution is clear) I move that that particular sec-

tion of the By-Laws be suspended temporarily in order to permit the 300-odd members whose names have been supplementarily published this year to be considered as members of the organization.

Secretary Morrison: They are already members of the organization.

Dr. Alexander: That they be considered, then, for the purpose of apportioning delegates next year, to be properly included in the number so considered for that purpose as members of their county organizations.

The motion was seconded.

President McBride: You have heard the motion. Is there any discussion on the motion?

Secretary Morrison: I move an amendment to this, that this matter be referred to the Committee on Constitution and By-Laws for consideration.

The amendment was seconded.

The question was put to a vote and the amendment of Dr. Morrison was carried.

President McBride: The matter is referred to the Committee on Constitution and By-Laws.

Dr. Morrison has a supplemental report to make at this time.

Secretary Morrison: Mr. President, it was my pleasure to accept an invitation to read a paper in a symposium on "ethics" at the Passaic County Medical Society last January. (See Journal for March, page 252.) Requests came from 4 county societies for copies of that address, and I have been requested by those 4 societies to read that paper before this House of Delegates. (The paper was read and turned over to a special committee which was later appointed.)

President McBride: You have heard the reading of Dr. Morrison's paper, together with the request for discussion. This paper is now open for any discussion or suggestions that you may want to make. If there is no discussion, the paper will take the usual course.

Dr. Eagleton: As I understand it, Dr. Morrison asked for the appointment of a committee. Dr. Morrison, I think, has done a great service to the profession in drawing attention to this matter. I think it is deserving of the attention of every member of this society and unless it is otherwise acted upon it seems to me this paper should be referred to a committee with the recommendation that such committee make some kind of report during this session, on or before Friday. I move you that a committee be appointed by the Chair to consider this paper and make some kind of report before the end of this session.

The motion was seconded.

President McBride: How many would you have on that committee?

Dr. Eagleton: As many as the Chair and Dr. Morrison want.

President McBride: We will make it 5.

The question was put to a vote and carried.

President McBride: I will announce that Committee, as follows: Drs. Wells P. Eagleton, Chairman; Lucius F. Donohoe, F. H. Todd, C. H. Schlichter, and James J. McGuire.

Is Dr. Carrington in the room? (Not present.)

We will hear the report of the Executive Secretary, Dr. Reik.

Report of Editor and Executive Secretary

To the House of Delegates,
Medical Society of New Jersey.

Gentlemen:

We are pleased to report that the work of this office has progressed very satisfactorily during this fiscal year. In accordance with custom, we are presenting a detailed report of the various factors in our work and directing attention to outside agencies and problems that in one way or another affect or concern this organization.

(1) The Journal. As was predicted in our last annual report, the amount of material offered for publication has increased markedly and we have had to make a slight further increase in size of the Journal. During the first 5 months of 1929, the Journal carried 440 pages of reading matter; during the first 5 months of 1930, it carried 500 pages; not very much of an increase but indicating that it is necessary now to have the Journal average something over 1000 pages per annum, and in our opinion it is not wise to extend it beyond that point because the additional 60 pages usually devoted to the Annual Transactions, 8 pages for the Index, and 44 pages of the Official List of Members, will bring the total close to 1200 pages for binding in 1 volume.

Studying the contents of monthly Journals since last June, we are impressed by the improved character as well as the increased number of Original Articles, and of the scientific reports received through the county societies or direct from affiliated county and city hospitals. Many of the staff meeting reports have presented clinical material of great value if measured on the basis of use as post-graduate reading; especially has this been true when those reports contained autopsy records in conjunction with the clinical portion of hospital case histories. If you have not been accustomed to reading that section of the Journal, we direct your attention to its importance.

The department entitled Collateral Reading has seemingly met with approval, if we may judge by the fact that members have written us concerning books reviewed and that several have reported the purchase of such books after having read these reviews. The Editor believes that the departments of Ethics and Economics have maintained their high standard and that they are proving of interest to readers. During the year it has been our object to present a series of very practical papers on economics. Thus, there have been 2 on the establishment of credit bureaus for the

collection of physicians' accounts; 3 additional articles on other methods of collection; 1 upon methods of increasing physicians' incomes; 2 on that very alarming topic—State Medicine—both written by prominent members of the profession; 1 masterly presentation of the subject—Group Practice—by Dr. Joseph Collins; and 1 that discussed industrial medicine from its several angles. If you have not read these articles, we believe it will repay you to review your Journals in order to make up for that oversight; indeed, the numerous papers on economics published in the Journal during the past 5 years would make an interesting brochure if collected for printing in such form.

In January, we established a new department in the Journal, to be devoted to consideration of school health problems. Material for this new department is supplied by Dr. Allen G. Ireland, Director of Physical and Health Education in the State Department of Public Instruction; and of his valuable assistance in other ways we shall have something more to say in another section of this report.

Two slight changes have recently been made in the Journal: The name of 1 department has been changed from "Lay Mirror Reflections" to "Public Relations", because that would give us more latitude in the choice of articles for publication; and a separate department has been established for publication of obituary notices, so that we might combine in 1 place death notices and resolutions adopted by county societies, and not have these scattered throughout the Journal.

That section of the Journal entitled Woman's Auxiliary is becoming of increasing importance, since it is being more widely read by the women members of physicians' families and they in turn direct the physicians' attention to personally interesting medical topics.

In the hall adjoining this room we have arranged an exhibit of State Society Journals, displaying those received from 30 states during the month of May. You will there be enabled to compare your own with the journals of other states; and we believe you may do so without fear of being shamed. We do not claim to be the "biggest" nor yet the "best" but neither are we the most insignificant. There is room for considerable improvement, and we hope to extend the progress already made toward fulfillment of our ideal.

The death of Dr. Charles D. Bennett, Chairman of the Publication Committee, is a serious blow to our Journal. For many years he directed the business policy of the Journal and had absolute control of its advertising pages and of its distribution. His devotion to that office was admirable, and it will be difficult to find a successor who will or can exhibit an equal degree of faithfulness to the interests of the Journal and the Society.

Just a short while prior to Dr. Bennett's passing, the Journal suffered another loss in the death of Frederick W. Hill, Business Manager of the Orange Publishing Company. For many years past Mr. Hill and his son had cared for all the technical features of printing our Journal and the relationship between Publication Committee and publisher has been of a most cordial personal character.

The departure of Dr. Bennett and Mr. Hill makes it necessary to establish a new business arrangement for our publication and plans will be offered for consideration at this meeting.

(2) County Societies. Thanks to improved health, we have done better this year in respect

to visiting county societies and we are happy to report having attended meetings in all but 2 of the 21 counties. We were unfortunate in that we could not make our travel schedule coincide with that of President McBride and Secretary Morrison, but that may not have been to the disadvantage of the societies for it enabled each of us to cover points that the others might have neglected to mention.

The Annual Conference of County Society Secretaries and Reporters was repeated in November and there are many evidences of good results growing out of these meetings. In several counties there have been marked improvements in programs submitted for county meetings; in several others there have been improvements in reports submitted for publication; in all counties there has been a revival of interest in their relationship to one another and to the state society. The complete report of that conference was published in the December Journal, pages 876-890, and it was intended for reading by all members of the society—not merely for those who participated—as it embraces a broad discussion of county medical society problems and difficulties and the efforts made to solve such problems in your individual interest. So, again, we recommend its perusal if you have not already given it full consideration.

That a coördination of interests and labors, as between neighboring counties, may be profitable has been illustrated by a second successful meeting of all the county medical societies in the Fifth Judicial Councilor District. Under the leadership of Dr. Aldrich C. Crowe, a joint meeting of the societies of Atlantic, Cape May, Cumberland, Gloucester and Salem counties was held April 17, 1930, at Woodbine Colony, a report of which was published in the May issue of the Journal. Not only was it a successful medical meeting but the coming together of physicians practicing in those adjoining counties could not be anything less than stimulating to good will, harmony and fellowship. We take advantage of this opportunity to recommend the plan to the Councilors of the other 4 Districts, suggesting that such a district meeting be held annually in each of the 5 state society subdivisions.

A business proposition that was under consideration by the Welfare Committee this year, and which we know was presented to some of the county societies, should perhaps be mentioned in this report. In the latest report from the Welfare Committee, published in the June Journal, you will find an account of the advertisements of the Gilbert Acceptance Corporation and the committee's disposition of its proposal. We trust you will read that report and that county societies will give careful thought to this or any similar proposition before taking action upon such matters.

(3) Woman's Auxiliary. Under the presidency of Mrs. James Hunter, Jr., the Woman's Auxiliary to the Medical Society of New Jersey has made further progress in the line of organization and by assiduous labor she has greatly strengthened the organization of a number of county society auxiliaries. In a few counties, the local auxiliaries have not yet received from the county medical societies that degree of support which is necessary to proper development, but we have faith that such support will come in the course of time. Reports of the proceedings of county auxiliaries are regularly published in the Journal and we receive many other indications that the work in general is progressing as well as could be expected. We refrain from directing attention to

the excellent work of a few of these county auxiliaries only because we fear that invidious comparisons might be drawn from our remarks. The whole organization is as yet too young for us to require of its branches a large program of accomplishments. You will, however, profit by reading that section of the Journal and noting what the women are doing toward advancement of professional interests.

During the year the Welfare Committee authorized publication of a booklet which should contain a brief history of the origin of the auxiliary movement, its progress in other states under the auspices of the A. M. A., and a more specific outline of work that might or should engage the attention of county auxiliaries. That "Primer" of 32 pages was distributed, through the agency of the State Auxiliary President and the presidents and secretaries of county auxiliaries, to every registered member of our auxiliaries, and then to practically every woman in the state eligible to membership. It is hoped that this will help to swell the county and state membership lists by bringing in those who have not previously understood what the auxiliary means and stands for, or who have been negligent about joining.

In addition to such distribution at home, we sent a few copies of the Primer to officers of the A. M. A. and of the National Auxiliary. Much to our surprise, the Primer caught the fancy of all those interested in furthering the movement and we have received many letters of praise for the part the New Jersey Medical Society is playing in promoting auxiliary interests. The National Auxiliary has already used a portion of the Primer in a publication of its own for distribution all over the country; the Pennsylvania State Medical Society and its auxiliary have purchased reprints of the Primer for use in that state; the Executive Secretaries of the Wisconsin and California Medical Societies have requested copies for use at home and have been granted the privilege of using the Primer in any way they see fit to advance local medical interests. The Primer is a striking illustration of how a small amount of force delivered at the right time and place may start a very large body in motion. We trust that our own auxiliary will use the Primer, as was originally intended, to stir up enthusiasm and to direct its energies along useful lines of endeavor.

(4) Educational Work. You will recall that we reported last year having previously turned over a large part of this work to Mrs. Taneyhill, who had been designated as Field Secretary to the State Society. We now have the pleasure of reporting that in view of her excellent report last June we delivered the public lecture work for this year entirely into her capable hands. As she will submit her own report, it is unnecessary for us to speak of it further, but as we have followed her work with much interest and kept in reasonably close touch with her plans and accomplishments, we do want to express here approval of what she has done and to request favorable consideration of plans she will submit. Incidentally, we congratulate her upon having attained a degree of success far beyond anything that crowned our earlier labors in that field. Mrs. Taneyhill has been devoting most of her time since November last to work in association with the public school system, and we wish you might all read the many letters and messages received from superintendents and other school officials praising her work and estimating its effect upon the community.

You will have noticed on the Official Program of the Annual Convention that provision is made

for a special afternoon session of the society, on Wednesday, to discuss various aspects of the physician's relation to school health. These 2 innovations, a special column in the Journal monthly and this special meeting, have grown out of our association with Dr. Ireland since the Field Secretary was so fortunate as to interest him in the public educational program of this society. We trust the society will express its gratitude to him for the new ideas he has given us, for the very great help he has been to our Field Secretary in developing her program, and especially for the hearty spirit of coöperation he has exhibited in the effort to bring physicians, school authorities, and the children's parents, to a better understanding of their proper needs and responsibilities.

Radio broadcasting was resumed from Station WPG and in the period between November 22, 1929, and April 11, 1930, our disease prevention program was put on every Friday evening—a total of 21 radio talks. The topics presented and the authors of such articles were:

Prevention of Disease	All 7 of these by the Editor
First Essential of Good Health	
Successors to Aesculapius	
Hippocrates, the Father of Scientific Medicine	
Galen, the Industrious Investigator	
Medicine of the Dark Ages	
Harvey and the Prevention of Heart Disease	
Periodic Health Examinations	
Psittacosis	
Mental Hygiene	
Importance of High Blood Pressure	John S. Irvin
The Mental Hygiene Clinic	Robert A. Kilduffe
On Being Fat	Bruce B. Robinson
Digging Your Grave With Your Teeth	Harold S. Davidson
Teeth and Their Care	Cole Davis
Reduction of Maternal Mortality	Robert A. Kilduffe
Deafness; Its Causes and Prevention	Sylvanus F. Reese
Prevention of Foot Trouble	Arthur W. Bingham
Tuberculosis	Charles S. McGivern
Protect Your Children	Elmer P. Weigel
Against Diphtheria	B. S. Pollak
Health Education in the Public School	F. J. Osborne
	Allen G. Ireland

Special thanks of the society are due, and hereby tendered officially, to Sylvanus F. Reese, D.D.S., Atlantic City; Dr. Bruce B. Robinson, Director of the Department of Child Guidance of the Newark Public Schools; Mr. F. J. Osborne, Health Officer of East Orange; and Dr. Allen G. Ireland, Director of Physical and Health Education of the New Jersey Board of Public Instruction; for their participation in this program.

Our recommendation of last year, that county medical societies should, wherever possible, arrange for broadcasting health programs from local stations, met with favorable responses from Atlantic, Bergen, Essex, Hudson, Monmouth and Passaic counties. Atlantic County joined with the State Society in the use of Radio Station WPG. The Secretary of the Bergen County Medical Society, Dr. Spencer T. Snedecor, reports as

follows, under date of April 11, 1930: "We have been giving weekly talks from Station WOR for the past 6 weeks and will continue on Tuesdays at 2.30 p. m. Also weekly talks from Station WBMS, at Hackensack, at 1 p. m., on Sundays. The effects of these talks are intangible, difficult to measure. However, I personally feel that they are meeting with the favor of members of the profession and are getting favorable public responses also—according to the broadcasting stations." Monmouth County reports, through Dr. William G. Herrman, Chairman of its special committee: "The Monmouth County Medical Society has been giving weekly talks from local station WCAP since December 12. The hour has been 8 p. m. and the day Thursday. A wide variety of subjects has been given, and to date only one man has talked twice. In other words, the representation of this society as a whole has been very good. We have covered a wide range of subjects, starting with the history of medicine, advances in the last 50 years, and then giving talks on such subjects as cancer, tuberculosis, childhood and contagious diseases, head and chest colds of autumn and winter, immunization, first aid, appendicitis, vitamins, etc. The society has taken considerable interest in the program, and while we have not received any appreciable applause from the laity itself, judged by letters directed to WCAP, the manager of the local station says that a great many people are interested and, since we planned to stop somewhere around the first of April, we have received word that the local station is anxious to have us continue because of public interest. One week in March was missed, due to a misunderstanding between the chairman and the speaker, and on this occasion many people called the station to know why the medical talk was not given."

Since publication of our Preliminary Report, in the May Journal, we have been informed that the Hudson County Society has a special committee considering broadcasting plans, and that the Essex County Society has engaged to put on a weekly program over WOR, on Wednesdays, at 3 p. m., commencing June 4. We look upon this project of county society broadcasting of health talks as one of the most effective means of counteracting the dangerous outpouring of quackery now deluging the public through the radio medium. This should be kept in mind when preparing radio programs, and an effort should be made to have some special talks adapted to local conditions.

As an illustration of what may be accomplished by county societies in the control of local abuses of advertising or of medical practice, we direct your attention to the Newark Athletic Club's withdrawal from practice at the request of the Essex County Society; report of which will be found in the June Journal. That very same condition exists in many other clubs and gymnasiums throughout the state and Essex might well extend its local work while other county societies follow the example already set.

In his annual report to the House of Delegates of the American Medical Association meeting this month in Detroit, Dr. Olin West will say, (see J. A. M. A., 94: 1577-8, May 17, 1930): "It has come to be the sport of pot-boiling writers to use the columns of such magazines as are open to them to slur medicine and its practitioners in articles in which truth is distorted and facts are ignored. The radio is being used by charlatans and faddists to further nefarious schemes or to propagate fanciful theories, as well as to belittle science and to slander physicians. * * * The situation is

one that demands that efforts for the information of the public shall be continued and persisted in until the truth shall prevail. This means that compact and efficient organization that will command the undivided loyalty of all reputable physicians must be perfected and maintained, through which information based on scientific fact can be disseminated and misinformation from any source whatever can be combated. * * * Our societies and associations in counties and states must offer leadership and helpful guidance in matters pertaining to public health, which is distinctly a field of medicine. They must, as organized bodies, carefully scrutinize and constructively criticize programs of government or of philanthropy, cooperate actively in any plan that is good, and persistently oppose every plan that will retard the development of the art and science of medicine or prevent the extension of its benefits in a manner that will serve the best interests of all the people."

The State Society had been promised the privilege of resuming its talks from WPG in October, but since that promise was made the municipal radio station has been leased to the Columbia system and we are not informed as to whether the promise will hold with the new controllers.

The matter of Post-Graduate Education for the benefit of our own members was passed on this year to a special committee appointed at the last Annual Meeting, and we shall leave to Dr. Cosgrove, Chairman of that committee, the privilege of reporting what has been done. We may, without impropriety, I think, say that in the exuberance of our joy over the success of this project, we wrote an official letter of thanks to President Thomas of Rutgers University, and received a most cordial response from him, in which he said: "I have been delighted to know of the success of the courses under the auspices of the Medical Society of New Jersey and our University, and was greatly pleased to have your letter concerning the same. I made report of these classes at a recent meeting of the Trustees, citing it as an outstanding example of the service of our institution, and the members of the Board expressed great interest and satisfaction."

(5) Public Relations. Our relationships and contacts with other organizations engaged more or less in medical work remain upon a highly satisfactory basis. As you will observe upon reading the Annual Convention Program, a great deal of space and time is being devoted this year to consideration of these public relations. Besides an entire session for discussion of school medical problems, another entire session is being devoted to addresses by the official heads of State Departments whose duties involve some contact with medical problems. So far as we know, this is the first time such a group has been invited to sit with us and discuss points of contact and possible points of dispute or disagreement with a view to rendering our relationships even better and of producing a clearer understanding and more friendly coöperation between practicing physicians and state officers with whom they must be directly or indirectly associated.

We have been pleased to note that during the year several of the county societies have provided for public relations committees, so that now our state society is well organized in that respect.

(6) Tristate Conference. We have just completed 5 full years of this intimate association with the neighboring medical societies of New York and Pennsylvania and we feel as strongly as ever that this is an association to be favored and continued. In the Journals of February and April

will be found complete reports of the sessions held in New Jersey, December 7, and in New York on February 8; proceedings of the Pennsylvania meeting, held May 24, will be published in the July issue. While all of these proceedings are worthy of your careful attention, we respectfully urge you to read the report that covers pages 156-178 of the February Journal because you will there find a comprehensive summary of the work of this conference during the past 4 years, especially of the part that the New Jersey Medical Society has played in that work, and a review of our own society's efforts to educate the public in medical matters. We have estimated that a compilation of the published reports of the Tristate Conference for these 5 years would make a book of 167 pages, of the same size as the Journal, in which you would have a fairly thorough consideration of the most important problems that have confronted these 3 state societies during that time. All of this you have, however, scattered through your Journals of this society if you have kept them for binding.

(7) Antidiphtheria Campaign. Recent issues of the Journal, especially those of March and May, contain complete reports of the progress made in this work and of plans for the immediate future. A new campaign of activity was started May 1, with the object of securing immunization of children under school age. You have all received personal letters from this office, requesting your aid in promotion of that special campaign. Those several communications to you embrace about all there is to say upon the subject, save to thank you individually for the support given to this effort to abolish diphtheria and to ask continuance of your aid in support of that laudable project.

From this time forth the brunt of the campaign will fall upon the several county committees (each of which has a local physician for chairman) and upon individual family physicians. The work has been well organized and well conducted by the state-wide campaign committee under leadership of Mr. F. J. Osborne, Health Officer of East Orange, and it is believed that the time has come for that organization to relinquish its control and leave the matter in the hands of the practitioners. We congratulate the general committee upon the manner in which this campaign was conducted and upon the effectiveness of its work, and we would recommend that the society shall extend thanks particularly to Mr. Osborne for his constant interest and indefatigable labors toward the abolition of diphtheria from this state.

(8) State Legislation. The Chairman of the Welfare Committee will doubtless report to you the result of our legislative labors. The usual number of *cult* bills were introduced this year, but once again we were successful in combating such attempts to break down the public's protection in the Medical Practice Act. Very fortunately, the State Medical Society was doubly well represented at Trenton with Senator Blase Cole in the upper House and Assemblyman Marcus W. Newcomb in the House of Assembly. The latter had to bear the brunt of the attack this time because most of the obnoxious bills originated in the House but he successfully prevented passage of any of them and scored a very unusual honor in defeating 2 of them in open battle upon the floor. The society owes a vote of special thanks to Dr. Newcomb for his able work this year in its behalf.

The so-called "Hospital Lien" was enacted into law. There were 2 bills before the Assembly, the one known as S. 117 being the one that the Welfare Committee finally decided to support, and

the one which was passed after having been amended. Originally it included protection for physicians and nurses, as well as for hospitals, but as it seemed unlikely to pass in that form efforts were concentrated upon securing at least protection of the institutions. It may be advisable to ask for an amendment at the next session to cover physicians and nurses.

In our report last year we discussed one assembly bill that had given us much concern, and predicted its probable reappearance at the General Assembly of 1930. It did appear, as A. 93—An Act to Regulate the Practice of Surgery and Surgical Specialties—and again suffered defeat, but, we repeat the admonition previously given that there is danger of some such legislation being enacted if the medical profession fails to meet this issue squarely. Those of us who have to argue with legislators, and who have been opposing *cult* bills because of their low educational standards, find it embarrassing to oppose a bill that on its face appears to raise standards; while at the same time having to admit that present conditions are unsatisfactory. It seems to us that the profession should take some steps toward improving and guaranteeing the qualifications of surgeons, general and special, and toward safeguarding the public against incompetent practitioners in the surgical fields. There is no doubt whatsoever that much harm is being done by incompetent, inexperienced persons attempting to perform major surgical procedures. That statement is not based upon complaints registered by disappointed or disgruntled patients, nor even upon the rabid railings of sensational magazine writers; take up any medical journal and find its verification. We have it within our power to correct some of the evil conditions by wise action on the part of the profession, and it is neither right nor safe longer to ignore the facts and the possible resulting consequences. The Welfare Committee has assigned consideration of this question to a subcommittee and that smaller committee will doubtless give serious thought to the problem during the next 6-8 months, but this is a question that concerns nearly every licensed physician and it behooves every member of this organization to study the problem and to aid in its solution.

(9) National Legislation. Our national representatives at Washington still annoy the profession with the threat of reenacting the Sheppard-Towner law, under a new name, the Jones-Cooper bill, and of adopting amendments to the Harrison Narcotic Act which will make that law a still greater nuisance to the practicing physician. We are opposing such legislation as best we can but wish to say to you as individual members that the officers of this society and of the American Medical Association will appreciate any aid you can render by speaking to your respective congressional representatives and urging them to vote against these pending bills. While the proposed tariff bill was in the House of Representatives we protested vigorously against a clause in that bill which would have raised the tariff on surgical instruments and greatly increased the cost of surgical apparatus to physicians and hospitals, and we received an assurance that the proposed tariff increase had been stricken out. During the past few months, however, that tariff bill has passed through so many vicissitudes in the Senate and in conference committee that we are unable to say just what is the present status of any particular item.

(10). History of Medicine in New Jersey. Since the last Annual Meeting, a number of members

have been discussing the desirability of publishing a "History of Medicine in New Jersey", and we are now able to report that definite steps have been taken toward accomplishment of that purpose. The Medical Society of New Jersey is the oldest of the state medical societies; possibly the oldest medical society of any sort on this continent. Throughout its 164 years of existence it has maintained a reputation for leadership in the advancement of medical science, promotion of medical organization work, and development of public education in health matters. There can be no doubt that a comprehensive history of medical affairs in this territory, commencing with conditions that existed before the first white settlers arrived on Jersey soil and coming up to the present day, would be interesting to the people of the state and constitute a creditable monument to the medical profession. No such history is now available. The facts are widely scattered through general, as well as professional, literature and state records, and it would seem a worthy task to gather this material for publication in book form.

Constituting themselves a special committee to perform this task, Drs. J. Bennett Morrison, George H. Lathrope and the Executive Secretary drafted an outline plan for such a history, secured contributions to a guarantee fund that would enable them to employ a competent agent to search for material and prepare the manuscript, and have now engaged such a worker, in the person of Miss Helen B. Calhoun, of Weehawken, a graduate of Barnard College, and a writer of recognized ability. The fact is recognized that there is a lot of work involved in developing these plans and it is expected that approximately 2 years of time will be required to accomplish the feat.

This is just a notice to you that such a history is in process of construction, and that you may await its completion with confidence and with intent to purchase a copy when it shall be ready for distribution.

(11) New Undertakings.

(a) Art. We had contemplated an Art Exhibit at this convention to show what had been done by physicians of this state. The response to our appeal was gratifying but not sufficient to justify an exhibition this year. We have, however, procured a list of 10 members who have for avocation some form of art work and we suggest the formation of a special committee, composed of those individuals, to work up an exhibition for next year; believing each of them will find one or more other members with artistic talent.

(b) State Medical School. Whether or not New Jersey is to be congratulated upon not having a medical college is a moot question; some of us have looked upon the absence of such an institution as quite beneficial to state and to medical profession, while others have felt that conditions might be improved by having such a central organization around which to rally. Quite recently we were approached by a representative of Rutgers University with the suggestion that this matter be carefully and thoroughly investigated. As a result of further conference with President McBride and Secretary Morrison it was agreed to request the Trustees of this society to appoint a delegate to join with a delegate from Rutgers and one from the Board of Regents of New Jersey in the preparation of an appeal and its presentation to the Rockefeller Foundation asking that body to make an investigation and to advise whether it appears desirable to establish a medical school in association with the state university.

We report the action merely that you may know consideration is being given to this problem.

(c) Society Home. Of much greater immediate importance, in our opinion, is the fact that definite steps have been taken toward procurement of a home or headquarters for the various activities of this society, and of funds to carry on our ever-increasing work. During the spring, the Executive Secretary formulated an appeal for funds to be used for these purposes, basing his argument upon a résumé of the society's past record and upon an outline of our needs and of opportunities open to the organization. One conference of officers and a few active workers has been held to consider that prepared appeal, and some slight progress has been made with plans for seeking funds. We have great hope of seeing this object attained in the near future; it will be, if each of you will render service if and when called upon for assistance.

(2) Office Observations. Under the new arrangements so graciously made by the House of Delegates and the Trustees last year, the office work has been greatly facilitated. We have now a better equipment with which to work, a more comfortable environment, and we hope this is shown in the character of work turned out.

Once again we delight in recording appreciation of the competency and efficiency of our secretary, Miss Margaret Mahoney. She has become an indispensable factor in the state society work, and at the proper time and place, we shall ask for suitable recognition of her excellent services.

Respectfully submitted by

Henry O. Reik, M.D.,

Editor and Executive Secretary

President McBride: You have heard this very excellent and complete report of our Executive Secretary, with its recommendations. Before taking action, I am going to ask the society to give Mr. Osborne, the Health Officer of East Orange, a rising vote of thanks for his splendid work in the anti-diphtheria campaign.

The audience arose.

President McBride: Now, I am going to ask that the same action be taken regarding our fellow-member, Dr. Newcomb, who guarded the interests of this society so splendidly in the Assembly during the past year.

The audience arose and applauded.

President McBride: Dr. Reik's report is now open for any discussion.

Dr. Quigley: I move that the report be accepted and referred to the Committee on Miscellaneous Business.

The motion was seconded.

Dr. M. W. Newcomb: I think each one in the state society knows that we have had a very successful year regarding legislation. We have had a number of bills—chiropractic, osteopathic, naturopathic, and all the other kinds of pathics that we have—and we successfully got every one off the floor except the osteopathic bill, Assembly Bill 161.

which allowed all osteopaths to use household remedies and germicides and disinfectants, and which was simply an entering wedge to get the privilege of prescribing drugs. That bill was reported out unexpectedly, and we defeated it on the first vote, 36 to 21. That shows what strength the cults have in the Assembly—21 votes, and it needs only 31 to pass; so, they were within 10 votes of passing the osteopathic bill. The last night of the session "the record" was asked on 161, and a motion was made that it be amended to cut out the household remedies. That came to a vote, and we had a debate, and we defeated it 39 to 11 on the second vote with the amendment, though the bill was not so vicious as the original bill.

I would like to say a few words about Dr. Reik's recommendation regarding the so-called Surgical Bill. That bill is being backed by some doctor in the state of New Jersey. I don't know who he is. I would like to know who he is. It seems to me there ought to be some way for this society to find out who is backing that bill. Dr. Hargraves, the member from Essex, and I are perfectly willing to fight for the medical profession, but we stand up there and talk *high standards* on all these cult bills, higher educational standards, and then one of the members comes along, or a layman, and introduces a bill with such high standards that we can't support it. Now, what kind of position are we in after arguing all these bills? We have to stand up before 58 other Assemblymen and say that *this bill is too high*, we can't support it. It is a rather embarrassing position to be in, and it seems to me that there ought to be some way to find out who is backing this bill and who is the "nigger in the woodpile" in the State Medical Society of New Jersey. One year it was introduced by some member from up-state. Last year it was introduced by Assemblyman Muir, of Union County; and nobody will tell who is backing it. Muir got up on the floor and ridiculed the medical profession of the State of New Jersey for about three-quarters of an hour. When this medical society goes on record against a bill like that, I don't think it is ethical for some one member to come up and slip it in through a layman, and he ought to be expelled from this society for putting us in such a position.

There ought to be some middle ground, as Dr. Reik suggests. If there is a lot of poor surgery being done, then draw a bill that we can get up on the floor and stand there four-square and fight for, and, believe me, we will fight for it for fair if the Medical Society will have its committee go over this question. That bill will probably be in again next year,

and we will be ridiculed just the same as we were this year, unless something is devised to meet the situation.

Secretary Morrison: Mr. President, I am given to understand—and this isn't official—that the backing of this bill originates in a national association in the United States, that it has been introduced in 7 state legislatures, that the members of the legislative committees in 6 other states are just as much embarrassed over this situation as we are in New Jersey. As has been said, both by Dr. Reik and Dr. Newcomb, there is no question but that in New Jersey there is a chance for reform of some kind in surgical procedures, and it is up to the medical profession to see to it that a law is drafted that will not be as drastic as this but that will meet the necessities of the public.

This question in all probability will be made the subject of discussion at our Tri-state Conference where some of the best minds in medicine in New Jersey, Pennsylvania and New York will give the subject thorough consideration, with a view of later on preparing a bill and presenting it to this House of Delegates for approval and for submission to the legislature, to control this surgical situation.

President McBride: If there is no further discussion, the motion to refer this to the Miscellaneous Committee will be put.

The question was put to a vote and carried.

President McBride: The report of the Field Secretary.

Mrs. E. C. Taneyhill read the report of the Field Secretary.

Report of the Field Secretary

Mr. President and Members of the House of Delegates:

Your Field Secretary takes great pleasure in submitting to the House of Delegates this report of what has been attained by the Medical Society of New Jersey during the sixth year of its disease prevention public health program, because it is a record which, to the best of our knowledge, places this state society very far in the lead in active support of the modern trend toward preventive medicine as sanctioned by the American Medical Association.

In general, the quadruple publicity program which has been carried out for 4 years has been adhered to. Contact with the county societies has been effected chiefly through the indefatigable Recording Secretary, Dr. Morrison. Broadcasting and newspaper publicity has naturally remained in the competent hands of the Editor of the Journal and Executive Secretary, Dr. Reik. It is obvious that no approach to an accurate estimate can be made of the returns on the investment of time and labor in these 2 fields, but in the matter of addresses to lay organizations we have a definite gauge of the increasing acceptability of our health education program, and it is to this phase that your Field Secretary has

devoted her main effort during the 3 years of her association with this society.

For 2 years we optimistically relied on the county societies and auxiliaries to see eye to eye with us in this undertaking. Through the intermediary offices of these organizations we were enabled to reach, in the year 1927-28, a total of 47 audiences, comprising in all 6700 persons. Our record for the year 1928-29 was 73 talks to an aggregate audience of 6250. Inasmuch as the total for the first year was enormously swelled by 2 school groups of 1000 pupils each, and as we had no such items the second year, an estimate of the growth of our work must be based on the appreciable increase (60%) in the number of talks given. This was consoling but not satisfactory. Only 3% of our invitations to speak had come through members of the county societies. The balance of our accomplishment stood to the credit of 7 of the auxiliaries. We had traversed the state in all directions, doubling back on our tracks repeatedly, at the beck and call of any group that would give us a hearing. Such lack of system was a waste of time, effort and money. It also placed our whole program at the mercy of the fluctuating enthusiasms of the county groups.

While casting about for some more stable method of procedure, we recalled that the occasional talks in the schools had been well received. This fact, coupled with the expressed belief of educators to the effect that the hope of a new doctrine lies in the rising generation, led us to consult with Dr. Ireland, Director of Physical and Health Education in the Public Schools of New Jersey, regarding the advisability of co-operation, with its resultant benefits to both the Department of Public Instruction and the Medical Society.

The acceptance by Commissioner Elliott and Dr. Ireland of our offer, their endorsement of our program, and their schedule assigning your secretary to each of the 21 counties in the state for a definite period of time during the year 1929-30, were measures so promptly put through that we were able at the last annual meeting of this society to report this affiliation as the definite basis of our work for the ensuing year. Copies of the schedule were also distributed at that meeting.

During the summer months your secretary followed up Dr. Ireland's letter to the county superintendents, notifying them of the time allotted to their separate counties, with a personal communication explaining the objectives of the Medical Society and asking for a definite reply as to whether it would be their pleasure to accept our offer. Of the 21 superintendents, 16 gave us immediate and cordial support. The superintendent of Bergen County felt that his territory was too extensive and his office force too inadequate to justify him in attempting to organize a suitable program. The superintendent of Cape May County said there were reasons why it would be advisable to delay his acceptance for another year. There was no reply from Camden, Monmouth or Sussex.

Inasmuch as the auxiliary of Monmouth County is inactive, we could not look for reinforcement in that quarter. The auxiliaries of Camden and Sussex counties, however, brought the matter to the attention of their respective county superintendents. Camden reported that a successor was about to be appointed to the office there and it seemed inadvisable to push our project at the time. The Sussex auxiliary reported

that the apparent indifference of its superintendent was due to an oversight; that we were cordially invited to speak in the county. Mrs. R. R. White, President of the auxiliary, was instrumental in arranging part of our program there.

In accordance, therefore, with the definite schedule which we had in hand at the beginning of this working year, your secretary has covered to date 17 counties. She has given a total of 247 talks to an aggregate audience of approximately 55,126 persons. Of the total number of talks, 63 were presented to adult groups and 184 in the schools. Adults in attendance numbered 3243; pupils in schools 50,043, and teachers were estimated at 1840.

To measure the increase in our work which these figures denote, it will be of interest to compare them with the combined totals for the 2 preceding years. From October, 1927, to June, 1929, we had to credit 123 talks to audiences comprising 12,950 persons. The scope of our work during this third year has therefore been almost exactly double that of the 2 preceding years combined, and our aggregate audience has grown to more than 4 times the size of the combined totals for the 2 preceding years. These figures are of course exclusive of the 30 requests that we have been unable to accept this year.

Your secretary has always been introduced as a representative of the Medical Society of New Jersey—an organization which probably nine-tenths of our auditors had never heard of—and the talks have always been given as a direct message from this society, showing the concern felt by its members for the physical well-being of the inhabitants of the state individually and collectively. This friendly gesture has also been noted by hundreds who have not been among our hearers, as they scanned their local papers, for the organizations sponsoring these talks have been alert to the value of publicity.

The support of the auxiliaries has shown a decided falling off, due possibly to a misunderstanding of the sort of help they could still render under the new alignment. Although the schedule was placed in the hands of every woman attending the June 1929 meeting, and although each auxiliary was urged to cooperate with its county superintendent of schools in securing engagements which might be outside his administrative territory, only 4 of these organizations—Burlington, Camden, Essex and Sussex—took the matter to heart and bestirred themselves to make a definite contribution to our project.

The circularizing of the Parent-Teacher Associations in Camden County by the Camden auxiliary, as reported last June, brought 21 requests for talks before those bodies, 10 of which we were able to accept. In Essex County, Mrs. Don Epler, chairman of the program committee, was tireless in her efforts to get our message across to every group that happened to be holding a meeting during the 10 days of our stay in that region. Her outstanding achievement lay in securing an invitation to broadcast over station WOR, the talk being happily designated by the announcer as a "contribution by station WOR to the health program of the Medical Society of Essex County". We received several congratulatory letters regarding that talk, and one request from New York for a copy to be used where the writer of the letter said it was "badly needed". "It was the best thing of its kind I have heard", she added. Dr. Lula Hunt Peters wrote, expressing her belief that in such "intelligent" broadcasting

the medical society has an effective offset to much of the quackery that goes over the air. In only one respect was this event a disappointment to us: the time and title of the talk did not appear in the newspaper radio program. We did not feel, however, that we were in a position to lament too loudly over this slip-up in publicity.

To the credit of the Union County Auxiliary should be placed 2 invitations from Mrs. Russell Shirrefs—one to speak before the Woman's Club of Elizabeth and one to give the illustrated talk on Pasteur at one of the High Schools there. Conflicting dates compelled us regretfully to decline both requests.

An unexpected, and to our mind wholly advantageous, function of a field secretary was revealed to us this year when we were invited to attend, as your representative, or to participate in, national and local conferences of associations devoted to child or public welfare. The most important of these was the National Child Welfare Association Conference, held at Sayville, Long Island, in June 1929, and we wish thus formally to acknowledge to Dr. Ireland our debt of gratitude for his kind offices in making this privilege available to us. Even more inspiring than the excellent program, to one who day by day forges ahead on an unblazed trail, were the informal discussions among the notable men and women who have so much to offer out of a rich experience in their organized effort to promote physical and mental adjustment. A number of physicians were in attendance at this conference, and the proportion of doctors of philosophy was impressive. It should be of interest to this House of Delegates to know that upon certain objectives all of these eminent leaders were agreed, namely, placing the responsibility for the welfare of the children directly upon the parents, and teaching the children to expect this safeguarding of their health, preferably under the supervision of the family physician. Furthermore, they were agreed that these ends were to be attained only through education, and more education, of both parents and children. In passing, you may find it significant to note that no other state medical society was represented at this conference, and could you know the cordial welcome accorded your representative whenever the slightest willingness is thus displayed by the organized medical profession to cooperate with any of the existing health agencies, you would surely take a much warmer interest in extending this recognition to those organizations that are so earnestly striving to promote health through the services of your profession.

Pointing out the definite though sometimes indirect support accorded by the medical society to the New Jersey Tuberculosis League, was our pleasant task at 2 meetings of County Health Associations, one in Cumberland and one in Salem county. In recognition of this service, Mr. Easton, the Executive Secretary of the League, wrote a most cordial letter of appreciation. One invitation, which we regretfully declined, came from the supervising principal of schools in Princeton to participate in the program for health week among the colored people in that town.

Our distress becomes really acute, however, when we cannot respond to the cry, "Come over into Macedonia and help us!" Mrs. Hunsberger, President-Elect of the National Auxiliary, wanted a speaker on Toxin-Antitoxin for a mass meeting to be held in Norristown, Pennsylvania. She offered a brass band and other trimmings, but the

date for the meeting had long been pledged elsewhere, so what could we do?

The Tristate Conference devoted a part of its session on December 7 to a consideration of the educational program of the Medical Society of New Jersey. Discussion of the paper read by your secretary, giving an account of this enterprise since its inception in 1924, brought out the fact that both New York and Pennsylvania are watching our progress closely and are perhaps a bit uneasy over the absence of any similar undertaking in their own societies. Dr. Joseph S. Lawrence stated that during his connection with the Department of Health of New York State, he had at one time 12 lecturers on public health topics in the field, at a salary of \$1500 to \$3000 each. He said that some of these speakers averaged more than 2 talks a week for the entire year. Anyone who is skeptical regarding the proportionate expense and attainments of this phase of the activities of the New Jersey Medical Society is invited to consider the fact that our average number of talks per week (counting 52 weeks to the year) comes to nearly 5—two and one-half times that of New York's best public health speakers—while the expenditure is only one-third greater than their maximum individual salary.

As a matter of fact, the record of the health education program of the Medical Society of New Jersey for the year 1929-30 should be regarded as a demonstration rather than as a standard which we can hope to maintain. Its accomplishment has been made possible only by the sacrifice of even the moderate amount of diversion which is indispensable to every normal life. It has meant long hours, long journeys, in all sorts of weather, from Monday morning to Friday night—sometimes from Sunday afternoon to Saturday morning, with 10-15 letters to fill the void that would otherwise be what was left of Sunday. Thus the record has been achieved, in the hope that it would be an acceptable tribute to those officers and members of the society whose vision and understanding have made it possible.

Should it be the pleasure of the society to continue its affiliation with the department of Public Instruction, Dr. Ireland suggests the following program for the year 1930-31: (1) To offer to the county superintendents of schools a schedule similar to that followed last year, advising them that the same 3 talks will be available for schools and other groups not yet reached. (2) To round out our general subject of preventive therapy by adding to the fairly comprehensive consideration we have been giving to physiologic prophylaxis, an exposition of the elements of mental hygiene, with special reference to early detection of psychic difficulties among school and pre-school children. As the discovery and attempted repair of such conditions would lie almost within the province of teacher or parent, discussion of this subject should be limited to Teachers' Institutes, Normal Schools and adult groups.

It would be difficult to assume that this last recommendation of Dr. Ireland's could meet with any other than a heartily favorable response on the part of every physician. There is probably no human being who does not retain a more or less vivid memory of mental difficulties which clouded his happiness or impeded his progress during childhood and which could have been vaporized by the timely help of some understanding older person. Most of us finally stumbled out on top of those psychic obstacles but thousands, less generously endowed, become eco-

nomic burdens to their families, wards of the state or inmates of jails. Scarcely a day passes without our attention being called in some way through the daily press or current magazines, to the alarming increase in the proportion of feeble-minded or insane and the problem of their institutional care. Indeed, the situation has become so serious as to have spontaneously generated lay organizations whose function it is to analyze conditions and foster remedial measures. In New Jersey we have, under Dr. Emil Frankel (Ph. D.), the Committee on Mental Hygiene of the State Board of Institutions and Agencies. There is also a National Committee for Mental Hygiene, with headquarters in New York City. The National Congress on Mental Hygiene met recently in Washington and was attended by many noted psychiatrists. The Medical Society of New Jersey is officially identified with this movement through its committee under the chairmanship of Dr. Jackson.

Something more than an intuitive hunch, however, is required of teacher or parent to know when to lay off the rod and seek the advice of a psychiatrist, and to teach teachers is no casual undertaking. Effective participation by the medical society in this mental prophylaxis program would therefore presuppose, on the part of your representative, adequate preparation, such as is to be obtained at one or another of the summer sessions of the universities. The summer school at Columbia, for instance, is offering 3 courses in Mental Hygiene. At Vassar 2 courses will be given, the children also in attendance at summer school there being available for demonstration. Dr. Ireland strongly advises that your secretary should make some such thorough preliminary study of this subject. If this House of Delegates approves this suggestion, it will be asked to include this comparatively small additional item in its appropriation for the educational work for the coming year.

Having thus delicately led up to the sordid subject of finance, this seems the suitable place to note that in the majority of the counties we visited last year the expense of transportation in the county was borne by the state department of education, and certainly the acid test of the value placed upon a possession is one's cheerful willingness to pay for it. County superintendents and helping teachers also gave generously of their time in enabling your representative to meet her appointments. Appreciation, courtesy and good will generated much needed motive power at times when the grade would otherwise have seemed rather steep. School principals were almost unanimous in their invitation for us to return. "Don't wait until next year", some of them said. "Come back again this year". On one occasion the school nurse followed up the talk with a "hands-up" count of the whole audience of 450 pupils, the 3 separate questions being, "Have you had your eyes, tonsils and teeth examined and treated, if necessary, within this school year?"

One High School principal said he had been greatly surprised and pleased by the way in which the toxin-antitoxin campaign had brought about a more fraternal spirit among the resident physicians, together with an apparently better understanding of their unique responsibilities and privileges in relation to the community. He now felt in those physicians, he said, a much stronger and more ready ally than he had thought he could count on heretofore.

It is Dr. Ireland's opinion, quoted here with his permission, that one definite and very desirable

result of the program carried out this past year is the recognition and appreciation by the student body, and especially by the teachers, all over the state, of the fact that the doctors are interested in them—interested in maintaining and promoting their physical fitness—in keeping them well. This realization will, he believes, be the beginning of an increasingly cordial attitude toward physicians and toward the measures they advocate.

Respectfully submitted,

Ethel C. Taneyhill,
Field Secretary.

Supplement to the Report of the Field Secretary for the Year 1929-30

Counties	Talks Given	Schools	Adults
Atlantic	12	780	380
Bergen	2		53
Burlington	9	2,625	295
Camden	10		429
Cape May	1		48
Cumberland	23	2,789	18
Essex	16	4,480	349
Gloucester	16	3,075	28
Hudson	2	300	16
Hunterdon	10	1,714	30
Mercer	23	3,880	130
Middlesex	20	3,284	35
Monmouth	0	0	0
Morris	9	2,030	95
Ocean	18	1,855	470
Passaic	6	3,600	275
Salem	12	2,145	45
Somerset	19	3,463	278
Sussex	6	1,035	12
Warren	7	1,285	
Union	26	11,703	257
	247	50,043	3243

Estimated number of teachers	1,840
School attendance	50,043
Adult groups	3,243

Total 55,126

President McBride: Before we act on this very excellent report presented by Mrs. Taneyhill, I should like to announce the special committees:

Committee on Credentials—Dr. Carrington, Atlantic City.

Committee on Resolutions and Memorials—Drs. Wilson, Union; Darnall, Atlantic; and Connolly, Essex.

Committee on Constitution and By-Laws—Drs. Quigley, Chairman, Scammel, W. B. Stewart, Trippe, McBride and Morrison.

Committee on Miscellaneous Business—Drs. Newman, Nevin, J. V. Bergen, W. B. Stewart and Leo Haggerty.

Secretary Morrison: Mr. President, I would like to make a few remarks about Mrs. Taneyhill's report. The fact that Mrs. Taneyhill's appeal for good health and for visitation to the family physician in all deviations from health has reached by personal appeal 55,000 people in New Jersey speaks

for itself and speaks volumes. There is no other method by which the family physician has been so prominently placed before the laity in any other state in the Union. I just want to read a few commendatory letters that have been written in regard to her work:

Mr. W. G. Atwood, Superintendent of Warren County schools, said in a letter to Mrs. Taneyhill: "I am writing this to thank you for coming to the county, and to tell you that I received very fine comments on your talks from all the Principals in whose schools you spoke."

One of those Principals, Mr. V. C. Brugler, wrote to the State Department of Public Instruction: "Mrs. Taneyhill addressed our High School, and gave a very interesting and helpful talk which seemed to be very much appreciated by both students and teachers. Her address should have a strong influence for good living. We appreciate having her with us."

Dr. John M. Dodson, of the A. M. A. Bureau of Public Instruction, said of this work: "Yours is the best program of which I have heard and New Jersey is well ahead of other states with its educational efforts by lecture and radio."

Finally, we are in receipt of a letter from the Director of Physical and Health Education, of the New Jersey State Board of Public Instruction, which reads as follows: "I have been wanting for some time to tell you of our gratitude for the splendid work Mrs. Taneyhill is doing for us, for the society, and for the school children of this state. Personally, I am delighted with the manner in which she has undertaken this project, and with the splendid comments we are receiving from the sponsors of her audiences. May I officially thank the State Medical Society, through you, for this most helpful coöperative work. There is nothing too good to be said for Mrs. Taneyhill, herself. She has given without stint of her time, energy and service."

Allen G. Ireland, M.D."

Dr. B. S. Pollak: I move that this report be submitted to the Committee on Miscellaneous Business to consider the recommendations therein contained.

The motion was seconded and carried.

President McBride: We will now have the report of the Committee on Welfare, Dr. Lippincott, Chairman.

Report of Welfare Committee

Our organization meeting was held at the Stacy-Trent Hotel, October 27, 1929. The wise policies of the former chairman, Doctor McBride, were endorsed and the present chairman has endeavored to continue these policies. The following definite program was decided upon: To call as few meetings as possible, in order to conserve the time of the members of the committee who, at the call of the chairman and with no little sacrifice, faithfully journey from all sections of the state to Trenton on Sunday afternoons to attend these meetings. To support such legislative matters as might be introduced that would benefit the public generally and preserve the present standards of the Medical Practice Act. To oppose vigorously and with dignity legislation that would tend to lower the standards and requirements to practice the healing art in our state. I am proud

to say for this service the members gladly gave their time and talent.

We did not favor visitations of groups of doctors to the Legislative Halls, if such could be avoided, and have endeavored to eliminate from our activities any semblance of lobbying. In lieu of this, we felt it would be more effective to have the county representatives on the Welfare Committee interview personally, by letter or by telephone, members of the Legislature, in both branches, in their respective counties. We felt that by personal interviews, with explanations of the good or bad in the proposed legislation, we would be able to impress the members of the Legislature with the idea that our stand is primarily for the general good of the state—not for the benefit of the medical profession. I think the results justified this plan.

This year was no exception to those of the past. There was the usual influx of bills introduced by the various cults, all aiming to enlarge their fields of practice and to open a way to practice the art of healing, with less difficulty to themselves than the present medical act requires. I am happy to report that the campaign against such bills was successful; not one of them becoming a law. The Welfare Committee is conscious of the fact that these results could not have met with success without the valuable help of many agencies outside the committee.

The Welfare Committee held 5 meetings and the average attendance was better than in previous years; 11 members attended every meeting; 13 members attended 4 meetings; 4 members attended 3 meetings; 5 members attended only 2 meetings. Dr. Charles B. Kelley, representing the State Board of Medical Examiners, was a regular attendant. His knowledge of the various bills and his wise counsel were of valuable service to this committee.

Following adjournment of the General Assembly, Dr. Newcomb, a member of the Assembly from Burlington County, was good enough to furnish me with the names of members of the House of Assembly who voted for the "osteopathic bill". I notified members of the Welfare Committee, telling them of the action of their assemblymen. Several wrote me that their assemblymen had broken promises. I want to especially commend Dr. Bernard C. McMahon, who took prompt action in the case of Mr. Young, Assemblyman from Morris County. I believe it would be well for all of us to let our law makers know we are watching their voting in Trenton and comparing their actions with their promises.

The Welfare Committee had a faithful and dependent friend in Dr. Newcomb, who kept us in touch with legislative activities. Also Senators Cole and Yates were dependable. Assemblymen Doctor Hargraves and Mrs. Peters, Chairman of Committee on Public Health, fought our battles with consistent interest. I want to especially mention the valuable services of Dr. D. Leo Haggerty, a member of the Welfare Committee from Mercer County, who gave much of his time to legislative doings and kept us informed of the status of every bill affecting public health matters.

A special committee was appointed to investigate the extent to which fee-splitting is indulged in, but reported difficulty in obtaining reliable information.

Senator Leap, of Salem County, a practicing attorney defending a chiropractor against charges of illegal practice of medicine, became very much enthused with his cause and threatened to take steps to test the constitutionality of the Medical

Practice Act. The senator was invited to come before the Welfare Committee and state his case. After his address he was requested to prepare a draft setting forth his ideas. This he agreed to do. A committee was appointed to receive and study this draft. So far, nothing has been received.

The Woman's Auxiliary Primer, a booklet ably compiled by Dr. Reik, has received much praise from the A. M. A., the National Auxiliary of the A. M. A. and from many state societies throughout the country.

The committee played a part in the defeat of the Joint House Resolution that threatened to interfere with the established plan of testing cattle for tuberculosis, and also a bill which was designed to confer a license upon the nephew of a prominent politician.

The "hospital lien" bill is now a law. Agitation for this legislation was started last year by Dr. Joseph F. Londrigan, of Hudson County, and again this year Dr. Londrigan took the matter up and successfully fought it through.

During many periods of our sessions, the Welfare Committee was gratified to learn of the magnificent work of the Field Secretary, Mrs. Taneyhill. Each year her activities are broadening. She is making contacts in a field that could not be reached by any other method.

In conclusion, I want to express to the members of the Welfare Committee my sincere admiration for their devotion to their profession and their labors during the last year, and to congratulate this society on having the services of so able an Executive Secretary and Editor. Dr. Reik's duties are many and well accomplished, but to my mind the outstanding piece of work is the rehabilitation of the State Society Journal. We now have a Journal of which all of us can be proud, and which undoubtedly is the envy of some other state medical societies.

I want to thank Dr. Reik, personally, for his invaluable help to me during this year as Chairman of the Welfare Committee.

I want to say that we are proud of the physicians who have at the expense of their practice and through many sacrifices weathered the unpleasant features of a political campaign, and who now grace the Halls of our Legislature in both branches, and who have stood shoulder to shoulder with their fellow physicians to preserve a high standard of requirement for those who wish to practice the healing art in the state of New Jersey.

A. Haines Lippincott,
Chairman.

President McBride: If there is no objection, the report will take the usual course, and we will now declare the session adjourned until 2.30 p. m.

The meeting adjourned at 1 o'clock.

Wednesday Afternoon Session

June 11, 1930

The meeting convened at 2.45 p. m., under President McBride.

President McBride: The first order of business this afternoon is the report of the Judicial Council.

Dr. Pollak: Mr. President and gentle-

men, perhaps for the first time in almost 50 years we find absent from among us today the personage of Dr. Gordon K. Dickinson. He is very ill, in the Doctors' Hospital in New York, and because of this I beg leave to introduce the following resolution:

"The New Jersey State Medical Society, in annual convention assembled, learns with regret of your illness, and, recalling your devotion and conspicuous service to this society, we hereby extend our best wishes, and hope that you will soon again join us in our deliberations."

I would like to have such a message sent, countersigned by the President and Secretary of this society.

President McBride: That will be done, and it will be spread in full on the minutes of this session.

Dr. C. C. Beling then read the report of the Judicial Council.

Report of the Judicial Council 1929-1930

First District

The Component Societies of First District have held regular meetings which were well attended and accounts of these meetings have been already recorded by the reporters of the societies and published in the Journal.

There were 11 suits brought against members in the First District: 5 are pending, 5 were closed, and 1 was settled for \$4712.05 (\$4500 damages and \$212.05 attorney's fees and court costs).

The societies have maintained a high standard of scientific work.

Essex County Society has gone on record for the restoration of the Medical Defense Act which was abolished last year. It is the feeling of that society that the defense of the members, with payment of court costs, was a strong element in the maintenance of the solidarity of its members as a group.

Christopher C. Beling,
Councilor First District

Second District

During the past year in Passaic County there have been reported to me 2 cases of threatened suits which have been turned over to the insurance company.

The meetings in my district have been largely attended and excellent papers have been read. I attended the Centennial Meeting of Sussex County Medical Society, and not only was there a very large attendance but a very interesting program.

The Bergen County Medical Society held a meeting last month which was attended by representatives from different counties throughout the state; about 125 present. This was an especially interesting evening with excellent entertainment.

Passaic County Society meetings have been held regularly, with large attendance at each meeting. At some of these meetings papers were read by men of high standing and of various specialties in New York City.

The advisability of holding a joint meeting of

the societies in this district, at sometime during the coming year, has been called to my attention. I bring this up to the Councilors for consideration.

F. H. Todd,

Councilor Second District

Third District

Regular meetings were held, scientific papers were read, and the attendance was generally good.

No suits were brought against the doctors of the societies comprising this district.

F. G. Scammel,

Councilor Third District

Fourth District

During the year, I have visited each county society. I attended the annual meeting in Ocean County, which was a celebration of the 50 years of practice of Dr. V. M. Disbrow, of Lakewood. The state society officers were present, and a number of friends from Monmouth County, where Dr. Disbrow started practice. We had a very fine dinner at Laurel-in-the-Pines. Dr. Tobin acted as toastmaster and introduced Drs. McBride, Morrison and Reik. Dr. McBride presented Dr. Disbrow with a framed engraved testimonial from the Ocean County Medical Society. Dr. Fisher, on behalf of the Monmouth County Medical Society, presented him with a large basket of roses. Dr. Disbrow thanked both societies for their kind remembrances. Dr. Fisher, of Asbury Park, read the minutes of some of the Monmouth County Society meetings when Dr. Disbrow was President many years ago. They were very interesting and showed that the meetings were well attended and the papers thoroughly discussed.

"Clinical Night" in Camden was one of the most interesting county society meetings that I have ever attended. The cases were extremely instructive to the general practitioner and were ably presented. I would suggest that, in counties having hospitals, the societies have several clinical meetings during the coming year.

Burlington County Society celebrated its Hundredth Anniversary this spring with a banquet. In addition to the families of members, many prominent people were invited. A paper on the history of the society was read by Dr. Richard D. Anderson, of Burlington, which was well prepared and most interesting. This was followed by an address by Hon. H. B. Wells. The climax of the program was a Medical Pageant by members of the society, who represented 12 of the greatest men in medical history. The characters were in costume, appearing upon the stage in chronologic order, dressed in the style of the period in which each lived. With a spot-light following him, each in turn gave a short sketch of his contribution to the science of medicine. The characters were as follows: Aesculapius, E. R. Mulford; Hippocrates, W. B. Decker; Galen, E. J. Imhoff; Hunter, R. I. Downs; Harvey, J. M. Kuder; Jenner, Joseph Stokes; Laenec, M. W. Newcomb; Long, G. T. Tracy; Virchow, L. M. Hollingshead; Lister, Emlen Stokes; Pasteur, D. I. Remer; Koch, H. E. Longsdorf. That meeting will go down in history as the greatest ever held in Burlington County.

All the other society meetings have been well attended. The papers have been scientific, well prepared, and followed by much discussion.

I am very glad to report that no damage suits have been brought against any member in this District during the past year.

Respectfully submitted,

M. W. Newcomb,

Councilor Fourth District

Fifth District

During the past year I visited all the counties for at least 1 meeting. They were all very well attended and had very good programs. The Salem County Medical Society observed its Fiftieth Anniversary.

The second annual joint meeting of the counties in the Fifth District was held at Woodbine, Cape May County. This meeting was well attended and very successful.

One malpractice suit was started in this district.

Aldrich C. Crowe,

Councilor Fifth District

President McBride: You have heard the very interesting report of the Judicial Council as presented by Dr. Beling. If there are no objections, this will take the usual course.

Now, the Treasurer's Report. I think there will be no occasion for the Treasurer to read his report, as he has had it printed and distributed.

Dr. Marsh: If there is anybody interested in the figures, he will find them before him in print so I will not read the figures of the report. I shall be glad to answer any questions that anybody wishes to ask about it. But I want to say 1 or 2 things. In the first place, the report of the Judicial Council referred to the repeal of the Medical Defense Act, and partly as a result of that, perhaps partly as a result of lessened activity—I won't say *lessened* activities but *varied* activities—of the Welfare Committee and of the Committee on By-Laws, for the first time in many years there has been no payment at all for legal services. The increase in assessment last year has allowed us to get through the year very comfortably, with an amount of \$3000, which was placed in the reserve by the Budget Committee and adopted last year, still intact. We set that aside hoping that we might get through the year with that intact, and if so we would be able to add it to the "permanent fund" with the idea of helping to get the permanent quarters and other things that Dr. Reik mentioned in his address this morning.

In the autumn of 1929 there was a little shortage of actual cash in the treasury, owing to the fact that the increased expense budget had been adopted last June but the increase in returns, the assessment, did not become available until January. So, in October, I sent out an appeal to the various county treasurers asking that if any of them

had any money paid in advance, any assessment paid in advance by their members, it would be appreciated, I told them, if they would please send it to me to tide over that emergency. I wish to express thanks, particularly to the treasurers of Salem and Morris Counties, for very prompt response; Hudson also authorized its treasurer to send me a very substantial payment in advance credit on assessments yet to be paid. I wish to thank all the counties that responded and to acknowledge that courtesy. With that help, we were able to come through without any difficulty at all.

Mr. President, it has occurred to me, looking through the Treasurer's report like this, that where you read so many hundreds or thousands of dollars for one thing and another, it doesn't give a man any definite idea of what his money goes for or why his assessment should be so much, or why it might not be a little less. I have prepared an analysis of the expense as it applies to each individual (\$15) and I should like to offer it for your information. The publication of the Journal, that is to say, printing and mailing and other expenses of the Publication Committee, has cost each man out of his \$15, \$2.32. The editorial salary, that is to say, counting that as half of his total compensation, \$1.90, making the cost of the Journal \$4.22 to each man. The Welfare Committee has cost each man 28c. The Executive Department has cost \$3.45 for salaries and \$2.31 for expenses, making \$5.76. The Recording Secretary's office, \$1.32. The Treasurer's office, 2c. Delegates to the American Medical Association, 23c to send them out there. Printing and stationery cost 66c. The Tristate Conference cost 6c. Various miscellaneous items of one kind and another make up 60c, and 15c goes to the permanent fund and is listed as reserve in the report. Of your \$15, there still remains a balance of 70c in the treasury available for further appropriation.

Annual Report of the Treasurer

1930

A

PERMANENT FUND

DR.

June 1, 1929	
2 M 1st Liberty Loan 3½ % bonds	\$2000.00
4 M 4th Liberty Loan 4¼ % bonds	4000.00
1 M Chicago & Alton 3½ % bonds	786.50
Mortgage Certificate, Investors	
Title and Mortgage Guarantee Company	2000.00
July 3,	
Cash from General Account	39.50
	<hr/>
	\$8826.00

CR.	
July 3, 1929	
Loss on Realization, Chicago & Alton bonds	126.00
May 31, 1930	
2 M 1st Liberty Loan 3½ % bonds	2000.00
4 M 4th Liberty Loan 4¼ % bonds	4000.00
Mortgage Certificates, Investors	
T. & M. G. Co.	2700.00
	<hr/>
	\$8826.00

B	
General Account	
RECEIPTS	
Balance, June 1, 1929	\$15,397.73
Assessments—	
Atlantic	\$1905
Bergen	2505
Burlington	720
Camden	1975
Cape May	240
Cumberland	715
Essex	10575
Gloucester	510
Hudson	5850
Hunterdon	375
Mercer	2235
Middlesex	1615
Monmouth	1230
Morris	1175
Ocean	225
Passaic	2895
Salem	225
Somerset	645
Sussex	240
Union	3085
Warren	375
	<hr/>
	39,315.00
Publication Committee	8,222.07
Interest	762.68
Health Examination Charts sold	13.10
	<hr/>
	\$63,710.58

PAYMENTS	
For Publication Committee	\$14,284.97
“ Welfare Committee	742.42
“ Credentials Committee	335.46
“ By-laws Committee	24.25
“ Health Insurance Committee	162.00
“ Executive Department:	
Salaries	\$14,000.00
Travel	2,309.44
Office expenses	3,296.81
Furniture (special)	438.70
	<hr/>
	20,044.95
“ Treasurer's Office	55.50
“ Recording Secretary:	
Salary	\$1,478.74
Expenses and Office	1,993.32
	<hr/>
	3,472.06
“ Rec. Sec'y: 1929 acc't	865.00
“ Expenses of Delegates to A. M. A.	621.34
“ Printing and Stationery	1,749.57
“ Tristate Conference	163.99
“ County Secretaries' Conference	130.15
“ Expenses of Guests, 1929 meeting	71.90
Transferred to Permanent Fund	39.50
Reserve	3,000.00
Balance, May 31, 1930	17,947.52
	<hr/>
	\$63,710.58

DISTRIBUTION OF DUES

Publication	\$2.32	
Editor	1.90	
		\$4.22
Welfare Committee .....	.28	
Executive Dep't: Salaries	3.45	
Executive Dep't: Expenses	2.31	
		5.76
Recording Secretary's Office	1.32	
Treasurer's Office .....	.02	
Delegates to A. M. A. ....	.23	
Printing and Stationery .....	.66	
Tristate Conference .....	.06	
Miscellaneous and Contingent ..	.60	
Reserve (Permanent Fund)	1.15	
Balance .....	.70	
		\$15.00

RECONCILIATION WITH BUDGET

Expected Income	\$48,450.00
Actual Income	48,312.85
Appropriations	48,450.00
Expenditures	45,763.06
Budget Surplus & Operating Net Balance	2,549.79

Respectfully submitted,

E. J. Marsh,
Treasurer

President McBride: Are there any questions anybody would like to ask Dr. Marsh? This is a very good report and detailed, and I think it has been very informative to us all.

We will now have the report of the Committee on Finance and Budget.

Dr. Pollak: In the absence of the Chairman, I will submit the following report for the Budget and Finance Committee:

Budget for Fiscal Year 1930-31

APPROPRIATIONS

Publication	\$14,250.
Welfare	750.
Credentials	400.
Executive Secretary and Editor: salary..	10,000.
Executive Secretary, office rent.....	900.
Executive Secretary, office expenses.....	2,750.
Executive Secretary, travel.....	2,000.
Field Secretary: salary.....	4,000.
Recording Secretary: salary.....	1,500.
Recording Secretary, expenses.....	750.
Recording Secretary, office.....	1,650.
Treasurer's expenses	100.
A. M. A. Delegates.....	800.
Legal	1,000.
Printing and Stationery.....	1,800.
Tristate Conference	150.
County Secretaries' Conference.....	150.
Contingent Fund	2,500.
Reserve	3,000.
	\$48,450

To meet these appropriations we expect the following:

INCOME

Balance	\$ 200.
Assessment	39,000.
Publication	8,500.
Interest	750.
	\$48,450.

President McBride: If there is no objection, the report will take the usual course.

Next is the report of the Committee on Honorary Membership.

Your Committee on Honorary Membership recommends for such membership: Joseph Edward Raycroft, M.D., Professor of Hygiene in Princeton University since 1911. Dr. Raycroft has been prominent as an administrator and educator in the fields of Physical Education, Social Hygiene and Mental Hygiene since 1892. He is a member of many state and national societies on Social and Mental Hygiene, and is President of the Board of Managers of the New Jersey State Hospital for the Insane at Trenton. He held responsible positions under appointment of the Secretary of War both in the A. E. F. and at home during the late war, and is the author of numerous papers on Student Health, Social Hygiene, Physical Education and Athletics.

Thomas W. Harvey, Chairman,
George H. Sexsmith,
William G. Schauffler.

President McBride: You have heard the report of the Committee, recommending Dr. Raycroft for honorary membership. All in favor of that will please signify by saying "aye"; "noes" if any. It is so ordered.

Report of the Board of Medical Examiners will now be presented by Dr. Kelley.

Report of the State Board of Medical Examiners

Charles B. Kelley, M.D., Secretary

Since the last annual report of the Board, several interval reports have appeared in the Journal. The Journal has also published Court decisions that were of particular interest to the profession. The following is a brief résumé of the Board's many activities:

Licenses. There have been issued 254 licenses to M.D.'s; of this number, 70 were by examination and 184 by endorsement of other State or National Boards of Examiners.

Thirty-four licenses have been issued to osteopathic physicians; 22 by examination, and 12 by endorsement.

Four licenses have been issued to chiropractors under the exemptions in the law, all by examination.

Nine licenses have been issued to chiropodists by examination; and 7 licenses to midwives by examination.

Revocation of licenses. The licenses of 2 physicians, 1 chiropodist, and 1 osteopath have been revoked during the past year, and the license of 1 midwife suspended. The medical and osteopathic licenses were revoked for the practice of criminal abortion. The chiropody license was revoked because the applicant presented fraudulent credentials. The midwifery license was suspended for the practice of criminal abortion.

Court Decisions. A most important decision of the Supreme Court during the past year, and one which still further strengthens the medical practice act, was in the case of the Board vs. De Baum. This case was lost in the lower court by the Board and an appeal was taken to the Supreme Court. In reversing the trial court, the Supreme Court said: "Electricity is a danger-

ous instrumentality with the ever present capacity to do serious bodily harm unless restrained within proper limitations. It is essential that its use as applied to the human body should be under the direction of authorized persons. Its use in the instant case was a part of the art of healing. The specific use above referred to in no wise involved the function of hand manipulation. We are unable to conceive of any hypothesis in the proofs in the case upon which the use of electricity in the manner stated is a part of the practice of chiropractic. We consider that the acts of the defendant were contrary to the prohibitory provisions of section 10 of the 1921 Act, and that they were not within the exception of section 9."

Prosecutions. Numerous complaints have been received and given attention. Many of these cases are still under investigation and will undoubtedly be prosecuted by the Attorney General. The following is a brief résumé of the cases that have been tried:

COURT CASES	
Won or settled.....	52
Lost	1
Won by Board, appealed to Supreme Court by Defendant.....	1
Decision reserved.....	1
Listed in Court and not yet tried.....	24
	79

HEARINGS BEFORE BOARD	
Medical	
Licenses revoked	2
Notice served not yet heard.....	2
Chiropody	
License revoked	1
Midwifery	
License suspended.....	1
Osteopathy	
License revoked	1
	7

DECISIONS RENDERED BY HIGHER COURTS	
Won by Board, appealed to Supreme Court by defendant. Trial Court sustained. Appeal by Defendant taken to Court of Errors & Appeals—Supreme Court Affirmed	1
Lost by Board, appeal to Supreme Court taken—Trial Court reversed.....	1
	2
	88

CLASSIFICATION OF INVESTIGATIONS AND INSPECTIONS	
Character	
Druggists practicing medicine.....	31
Prescribing of herbs and drugs.....	41
Chemists and laboratories.....	0
Medical doctors.....	36
Unlicensed chiropractors.....	12
Chiropractors exceeding licenses.....	9
Osteopaths exceeding licenses.....	9
Chiropodists, unlicensed, and exceeding licenses	6
Masseurs and massage treatment.....	4
Electrotherapy	17

Naturopaths	18
Midwives, unlicensed and exceeding licenses	7
Spectrochrome	4
Optometrists, exceeding license.....	3
Laying-on-of-hands	3
Miscellaneous	53
Medical—revocation	4
Midwifery—revocation	1
Colonic therapy.....	4
Physiotherapy	4
Chiropody—revocation	1
Grand Total.....	267

ANALYSIS OF INSPECTIONS AND INVESTIGATIONS MADE DURING THE YEAR 1929

Total Number of Investigations and Inspections made	267
Total number of visits made and treatments received in making the investigations and inspections	1501
Average number of visits per investigation	5.62

In conclusion, the board would emphasize that it has continued to carefully watch the side doors and back doors as well as the front doors into the practice of the healing art.

President McBride: You have heard this very excellent report of Dr. Kelley's. Is there any discussion? If not, it will take the usual course.

The report of the Committee on Post-Graduate Instruction, Dr. Cosgrove, Chairman.

Report of Committee on Post-Graduate Medical Education

To the House of Delegates.
Gentlemen:

Early in the current year, your President appointed a Committee on Post-Graduate Education consisting of Drs. Alexander Macalister, Clarence L. Andrews, Royce Paddock, H. H. Satchwell, E. G. Waters, Richard D. Anderson and Samuel A. Cosgrove.

The chairman of this committee was furnished by the Executive Secretary of the Society, with certain correspondence which had taken place last year between the officers of the society and the President and the Director of the University Extension Division of Rutgers University, whereby a tentative arrangement had been made between the society and the university for operating Post-Graduate Extension Courses in Medicine for the members of the society.

The committee met early in the year with a representative of the university and confirmed the details of this arrangement. The committee assumed full financial responsibility for the enterprise and the responsibility for setting up the content of the courses and the selection of teachers. The university assumed responsibility for the essential and arduous record work, together with the issuance of credentials to students of the courses. Lacking the available funds in its own appropriation necessary to finance this work, the university was reimbursed for the expense thereof by the committee out of funds collected from students.

The committee early determined upon the following policies for the current year:

(1) The presentation of 2 basic, somewhat elementary, courses; 1 in medicine and 1 in surgery, each to embody a selected list of subjects thought to be most generally useful and practical.

(2) The selection of competent teachers from staffs of teaching institutions and from men experienced in teaching similar groups of students.

(3) Payment to these teachers of fixed fees, plus traveling expenses.

(4) Organization of subcommittees in each component county society.

(5) Presentation of the courses to student groups of a minimum number of 25, for a fixed instruction charge of \$30 for each course.

The committee then sought and obtained the gracious coöperation and assistance, as consulting experts, of: Dr. John Henry Wyckoff, Jr., Secretary and Associate Professor of Medicine at University and Bellevue Hospital Medical College in New York City, and Director of the Third Medical Division at Bellevue Hospital; Dr. George H. Meeker, Dean of the University of Pennsylvania Graduate School of Medicine, Philadelphia; Dr. Harold Elmore Santee, Professor of Clinical Surgery at Cornell University Medical College, New York City, and Director of the Second Surgical Division at Bellevue Hospital; and Dr. Eugene Floyd Du Bois, Associate Professor of Medicine at Cornell University Medical College, and Director of the Second Medical Division at Bellevue Hospital.

The subjects presented in the 2 courses were as follows:

General Medicine

- (1) Diseases of the Blood
- (2) Pneumonia
- (3) Diseases of the Heart
- (4) Diseases of the Heart
- (5) Renal Diseases
- (6) Renal Diseases
- (7) Drug Therapy
- (8) Drug Therapy

Surgery

- (1) Treatment of Minor Injuries
- (2) Infected Wounds
- (3) Common Fractures
- (4) Head Injuries
- (5) Burns and Asphyxiation
- (6) Internal Injuries
- (7) Osteomyelitis
- (8) Joint and Tendon Injuries

Twelve courses were given in 9 centers as follows:

Atlantic County, at Atlantic City.....	Medicine
Cumberland and Salem Counties, at Bridge-	
ton	Medicine
Essex County, at Newark	Medicine
Hudson County, at Jersey City.....	Medicine and
	Surgery
Mercer County, at Trenton.....	Medicine and
	Surgery
*Middlesex County, at New Brunswick and	
Perth Amboy	Medicine
Monmouth County, at Asbury Park....	Medicine
Passaic County, at Paterson.....	Medicine and
	Surgery
*Somerset County, at Somerville.....	Medicine

*In Somerset and Middlesex Counties the courses were split, with the omission of some medical lectures and the substitution therefor of selected surgical lectures.

The subjects named were given by the following instructors:

Dr. Frederick Bancroft, Associate Professor of Clinical Surgery, Columbia University, College of Physicians and Surgeons.
Dr. Fenwick Beekman, F. A. C. S., New York.
Dr. Morris Block, Third Medical Division Bellevue Hospital, New York.
Dr. Joseph Connery, Assistant Professor Clinical Pathology, University and Bellevue Hospital Medical College.
Dr. Russell L. Cecil, Assistant Professor of Clinical Medicine, Cornell University Medical College.
Dr. Lewis Connor, Professor of Medicine, Cornell University Medical College.
Dr. E. T. Crossman, Associate Surgeon, University of Pennsylvania Medical School.
Dr. J. B. Carnett, Professor of Surgery, Pennsylvania Graduate School of Medicine, Philadelphia.
Dr. A. C. DeGraff, Associate Professor of Therapeutics, New York University and Bellevue Medical College.
Dr. Paul Colonna, Clinical Professor of Orthopedic Surgery, Bellevue Hospital.
Dr. Joseph C. Doane, Associate Professor of Medicine, Pennsylvania Graduate School of Medicine, Philadelphia.
Dr. William Darrach, Dean and Professor of Clinical Surgery, Columbia University, College of Physicians and Surgeons.
Dr. Cary Eggleston, Assistant Professor of Clinical Medicine, Cornell University Medical College.
Dr. H. B. Eisberg, Lecturer on Surgery and Assistant in Charge of the Department of Experimental Surgery, New York University and Bellevue Hospital Medical College.
Dr. Thomas Fitz-Hugh, Jr., Philadelphia, Pa.
Dr. William Goldring, Adjunct Visiting Physician, Bellevue Hospital.
Dr. Harry Gold, Assistant Professor of Pharmacology, Cornell University Medical College.
Dr. Malcolm Goodridge, Professor Clinical Medicine, Cornell University Medical College.
Dr. John Gerster, Assistant Professor of Clinical Surgery, Cornell University Medical College.
Dr. Francis Clark Grant, Philadelphia, Pa.
Dr. J. M. Hitzrot, Professor Clinical Surgery, Cornell University Medical College.
Dr. John A. Kolmer, Professor of Pathology and Bacteriology, University of Pennsylvania Graduate School of Medicine, Philadelphia.
Dr. Walter Estell Lee, Professor of Surgery, Pennsylvania Graduate School of Medicine, Philadelphia.
Dr. Edward M. Livingston, Assistant Attending Surgeon, Bellevue Hospital.
Dr. John Moorhead, Professor Traumatic Surgery, New York Post-Graduate Medical School.
Dr. John A. McCreery, Assistant Professor of Surgery, Columbia University, College of Physicians and Surgeons.
Dr. G. M. Piersol, Professor of Medicine, Pennsylvania Graduate School of Medicine, Philadelphia.
Dr. M. B. Rosenbluth, Assistant Professor of Medicine, New York University and Bellevue Medical College.
Dr. W. D. Stroud, Associate Professor of Cardiology, Pennsylvania Graduate School of Medicine, Philadelphia.
Dr. James E. Talley, Professor of Cardiology, Pennsylvania Graduate School of Medicine, Philadelphia.

Dr. William C. Thro, Professor of Clinical Medicine, Cornell University Medical College, New York City.

Dr. DeForest P. Willard, Professor of Orthopedy, Pennsylvania Graduate School of Medicine, Philadelphia.

The total number of registrants throughout the state was 415. The courses were operated at weekly intervals between lectures for 8 weeks during the months of April and May. At the end of the courses certificates were awarded by the University, jointly with the society, to all those who had actually attended 75% of the sessions of the courses subscribed to.

All expenses of the work were fully met by the fees, and a surplus remained to the committee of about \$1100. A complete financial report is appended hereto.

At the completion of the courses, questionnaires were issued which each subscriber was asked to fill out. The total number of questionnaires returned and analyzed was 245, of which group 211 (86%) expressed themselves as generally pleased and as being probably willing to subscribe to subsequent courses offered; 34, for various reasons, were doubtful of subscribing in the future; of these, only 4 (1.6%) expressed themselves as regarding the course as definitely unsatisfactory.

There were many valuable and constructive criticisms of and suggestions concerning the courses offered which are significant, and which should be carefully considered in setting up future courses.

A few considered the courses essentially too elementary; a much larger number thought that too much ground was covered in the course and that a narrower range of subjects, with more thorough consideration of each, would be more helpful. Several requested that the subject matter of the lectures be outlined and mimeographed so that each student could have a copy. A very sensible suggestion was that the several lecturers whose talks would be embraced in one course, should meet before the course is offered, in order to better coordinate treatment of the several component subjects in the course. The most general criticism voiced was the feeling that the courses could be made more helpful by:

(1) The employment of pure clinicians rather than investigators and theorists.

(2) Elimination of statistical and experimental charts and a more general employment of black-board drawings and lantern slides of clinical, rather than statistical, material.

(3) Introduction of actual clinical cases where possible.

(4) More extended opportunity for questions and forum discussion.

(5) Avoidance of reading the lectures.

(6) Beginning of all lectures promptly at the hour scheduled.

It is believed by your committee that most of these suggestions should be incorporated in future plans.

In response to the question as to the subject matter to be included in subsequent courses, the subjects were so varied as to be bewildering, and showed the wide variety of interests which occupies the minds of our members; as between general medicine and general surgery, the majority favored medicine. The relative interest shown in specific subjects is indicated numerically in the following list: Gastro-Intestinal Diseases,

28; Gynecology, 20; Obstetrics, 18; Pediatrics, 16; General Therapy, 15; Cardiac Diseases, 15; Abdominal Surgery, 15; Metabolic Diseases, 13; Renal Diseases, 12; Respiratory Diseases, 11; Endocrinology, 9; Nervous Diseases, 9; Fractures, 9; Acute Infectious Diseases, 8; Anesthesia: general, local, obstetric, 6; Physical Diagnosis, 6; Surgical Diagnosis, 6; Tuberculosis of the Lungs, 6; Thyroid Disease, 5; Electrocardiology, 5; Minor Surgery, 4; Blood Diseases, 4; Arthritis, 4; Genito-Urinary Diseases, 4; Pneumonia, 3; Orthopedics, 3; Surgical Emergencies, 3; Dietetics, 3; Syphilis, 3; Skin Diseases, 3; Joint Infections, 3; Eye, Ear, Nose and Throat, 3; Hypertension, 2; Physiotherapy, 2; Varicose Veins, 2; Vaccines and Serums, 2; Allergy, 2; Cancer, 2; "Common Diseases of General Practice", 2; Chest Surgery, 2; Mental Diseases, 1; Venereal Diseases, 1; Cystoscopy, 1; Prostatic Disease, 1; History taking, 1; Parasitic Diseases, 1.

Your committee has only 2 recommendations to make:

First, the effort to provide post-graduate instruction to the membership has been so enthusiastically subscribed to, and so generally appreciated by those who have subscribed this year, that we recommend similar opportunity continue to be offered to members of the Medical Society of New Jersey. We feel that it would be presumption on the part of the present committee, whose entity ceases at this time, to make specific recommendations for future conduct of such courses. The records of this committee will, of course, be available to subsequent committees, as will the experience gained by the personnel of the University Extension Division of Rutgers University.

Second, there is a real need for this work. That need cannot, however, be met in the fullest degree, especially in rural sections of the state, so long as it is necessary to finance the project wholly from the fees derived from students, because to do this necessitates offering courses only where comparatively large groups can be concentrated for such instruction. The value of the opportunity could be greatly enhanced by permitting small groups of practitioners to receive courses. In this way also a greater variety of courses could be offered to any given number of the membership.

This need is so manifest by the work accomplished this year and so important to the profession, and through physicians to the citizenry of our state, that it is recommended that the need be presented through the agency of the State Society to the State Board of Regents, to the end that they recognize it as a *public* necessity, and by this recognition of *public* need, be prevailed upon to include in their appropriation for Rutgers University Extension Work funds sufficient to permit the fullest coöperation of the University Extension Division of the University in future programs of post-graduate instruction, to be worked out with the society.

This recommendation has been presented to and approved by the Welfare Committee of the Society. The House of Delegates is hereby earnestly requested to give this recommendation whole-hearted endorsement, to the end that the officers and members will coöperate with your future committees, using every endeavor to impress this need strongly upon the honorable members of the Board of Regents.

The chairman desires to extend his appreciation, for their interest and helpfulness, to the members of his committee.

The committee as a whole desires to express most cordially their appreciation and gratitude to the personnel of Rutgers University, and particularly to President John M. Thomas, Director N. C. Miller, and Professor M. A. Chaffee, of the University Extension Division of that institution, for a coöperation which alone made possible any

progress toward instituting post-graduate work in our state. It is especially grateful to those eminent members of our profession who, by their counsel, their interest, and the devotion of their time, as advisers and instructors, have made the initial courses of this important endeavor in such high degree satisfactory.

Respectfully submitted,

S. A. Cosgrove, M.D.,

Chairman

Financial Report

POST-GRADUATE COURSES IN MEDICINE AND SURGERY

Atlantic County	(Medicine)	25 Enrollments @ \$30	\$ 750.00	
		9 Interns @ \$10	90.00	
				\$ 840.00
Cumberland County	(Medicine)	27 Enrollments @ \$30		810.00
Essex County	(Medicine)	44 Enrollments @ \$30	1320.00	
		1 Enrollment @ \$25	25.00	
		6 Interns @ \$10	60.00	
				1405.00
Hudson County	(Medicine)	60 Enrollments @ \$30	1800.00	
		1 Enrollment @ \$12	12.00	
		2 Interns @ \$10	20.00	
				1832.00
Hudson County	(Surgery)	27 Enrollments @ \$30	810.00	
		2 Interns @ \$10	20.00	
				830.00
Mercer County	(Medicine)	33 Enrollments @ \$30		990.00
Mercer County	(Surgery)	32 Enrollments @ \$30		960.00
Middlesex County	(Special)	28 Enrollments @ \$30		840.00
Monmouth County	(Special)	26 Enrollments @ \$30	780.00	
		3 Interns @ \$10	30.00	
				810.00
Passaic County	(Medicine)	34 Enrollments @ \$30	1020.00	
		1 Intern @ \$10	10.00	
				1030.00
Passaic County	(Surgery)	25 Enrollments @ \$30		750.00
Somerset County	(Special)	28 Enrollments @ \$30	840.00	
		1 Intern @ \$10	10.00	
				850.00
Total amount received from Students				\$11,947.00
Refunds:				
	Atlantic County	1 @ \$10.00		
	Essex County	1 @ 11.25		
	Middlesex County	1 @ 10.00		
				31.25
				2) \$11,915.75
Amount due Medical Society on Tuition Fees			5,957.87	
Less Lecturers' Fees (96 @ \$50 each)			4,800.00	
			1,157.87	
Less estimated expenses on lanterns, etc.			* 100.00	
TOTAL AMOUNT DUE MEDICAL SOCIETY FOR SERVICES IN ORGANIZING CLASSES			\$1,057.87	

*Surplus, if any, to be forwarded later.

Dr. Schauffler: I move that the report be received and the recommendations carried out.

The motion was seconded and carried.

President McBride: The report of the Committee on Public Hygiene and Sanitation. (No one present to present a report.)

Report of Committee on Standardization of Hospitals. (Not present.)

Report of Committee on Indemnity Insurance, Dr. Beling, Chairman.

Report of Committee on Medical Defense and Indemnity Insurance

During the past year, 1420 members were insured under the Policy of the United States Fidelity and Guaranty Co., approved by the Medical Society of New Jersey. The number insured the previous year was approximately 1100. The increase was nearly 30%.

In the last 6 months, 20-30 members per month took out policies. Mr. Heard, of Faulhaber and Heard, has been personally visiting the doctors not on the list of insured under the society's policy.

Sixty-four claims were made against doctors who had our policy and 2 against those who had individual policies; 24 cases are pending; 40 cases were closed. In 3 of them, claims were not pressed; 1 case was settled at a cost of \$4,712.05 and 1 for \$5000. The total payment in all cases was \$17,546.10.

The present cost of insurance to members of the New Jersey State Medical Society, on account of its good experience, is at a very low rate. The cost in 2 other eastern states, designated as N and M, compare with New Jersey as follows:

	\$10,000-30,000	\$25,000-75,000	\$50,000-100,000
N	\$43.84	\$65.12	\$74.83
M	\$20. to 35.	\$36. to 63.	\$40. to 70
N.J.	\$16.00	\$23.50	\$35.00

Cost of X-Ray and Radium Policies

	\$10,000-30,000	\$25,000-75,000	\$50,000-100,000
N	\$135.63	\$201.47	\$231.63
M	75.00	135.00	150.00
N.J.	70.00	85.00	110.00

Our present insurance rates compared with those of 2 other companies are:

	\$10,000-30,000	\$20,000-60,000	\$50,000-100,000
A	\$25.00		
B	21.00	\$37.00	
U.S.F.&G.	16.00	23.50	\$35.00

The U. S. F. & G. extends to doctors the privilege of further reduction in cost of the policy: "If protection is taken for 3 years, a discount of 10% of the full 3-year premium is allowed, payable 50% the first year, 30% the second year and 20% the third year." Under this plan the average yearly cost for a \$10,000-30,000 policy is \$14.40. If the full 3-year premium is made in 1 payment a further discount of 5% is allowed, and the average annual cost reduced from \$14.40 to \$13.60. This average cost compared to policies of A and B companies is 45% and 34% respectively.

Of 1420 members insured, only 38 are covered for X-Ray and Radium, 22 for X-Ray, 8 for Ra-

dium, and 8 as Dermatologists. The approximate revenue from this specialists group is: X-Ray \$1865; Dermatologists, \$639. Radium, \$770; Total, \$3274. The last 5 years' statistics show that there were 950 claims in the X-Ray group with losses of \$225,000 and a loss ratio of 66%, not including costs of litigation, agents' commissions, etc.

During the past few years companies have ceased writing x-ray and radium contracts in 3 to 8 states, on account of sad experience. One company increased its rates in several states. Sufficient data on x-ray and radium coverage have not been accumulated by the companies to enable them to fix definite rates. Our company has had a loss ratio of over 79%. From the small amount received from x-ray users, less than \$2000, one recent loss would take 5 years of premiums to overtake that judgment alone.

The committee has gone into details because protests have been made as to the exorbitant costs of x-ray and radium insurance. As a matter of fact, the contrary is true. A special committee reviews every application for x-ray and radium protection, and unless approved by that committee the company does not issue a contract. Thus, incompetent men are discouraged from doing this line of work and standards are kept up, the public protected and more work given to those who deserve it. If x-ray and radium should be included in a blanket policy, the initial cost would be increased to every insuring member, and very soon thereafter a larger number of suits would bring further burdensome increases for contracts.

The following table shows the number of members insured during the past year, an increase of nearly 30%.

Members insured in each county:

Total Membership	County	Number Insured	Percent Insured
101	Atlantic	71	70-1/3
99	Bergen	81	81
43	Burlington	25	81
115	Camden	60	52
15	Cape May	10	66
47	Cumberland	38	68
576	Essex	422	73
32	Gloucester	20	62
344	Hudson	191	55
24	Hunterdon	13	54
145	Mercer	81	56
107	Middlesex	37	34
68	Monmouth	27	39
71	Morris	45	63
13	Ocean	8	61
157	Passaic	98	62
13	Salem	7	54
40	Somerset	23	57
16	Sussex	4	25
151	Union	146	97
13	Warren	13	100
2290		1420	

The present contract is most complete. The Insurance Company has done its work satisfactorily.

We recommend renewal of the contract for the next year, through the same agency.

Respectfully,

Christopher C. Beling,
John McCoy,
Alexander Marcy,
Edgar A. Ill,
Erwin Reissman.

Dr. Pinneo: We note that last year this committee reported, among other things, the favorable compulsory insurance for every member as a condition of membership. That was voted out, but the old Medical Defense Act was abolished by adoption of one of the reports. Referring to the Transactions, you will find there was very little discussion of it, and during the year there has been a very great surprise and disappointment expressed that, without the members apparently knowing it, they have been deprived of that medical defense. I am speaking now by virtue of instructions from our Essex County Society in favor of restoring it. I am going to wind up with a motion.

In speaking for the restoration of the Medical Defense Act of the State Society, there is no intention at all to criticize this indemnity insurance, which is an admirable policy. Furthermore, no one that had the benefit of medical defense as a member would think of it as insurance, but a very valuable thing in our profession is the knowledge that if a man needs defense he has his fraternal organization back of him. That we haven't got now. The position we want you to take now is that this House of Delegates approves and recommends to the Trustees restoration of that medical defense. Understand, this is not critical at all of this admirable policy of the U. S. F. & G.. It is not a substitution of competitive insurance. It is putting us upon a basis where there is a fraternal feeling for those worthy of defense. Furthermore, it does not obligate the Judicial Council to defend any case that it feels cannot be well defended from a medical point of view. The men who are expressing their opinions upon it are unanimous in feeling that it is desirable and not harmful in any way and does not militate against men taking the insurance.

Dr. A. W. Bingham: I should like to second that motion. It seems to me a very strong point to have the members of the state society back of you when suit is brought against you, and I can speak with considerable feeling on this, having had suit brought against me over 20 years ago. I was defended by the state society alone. Our legal representative prepared such a defense that those who brought the suit saw there was no reason for it at all and the suit was dropped, but I believe they took that action because they felt that the state society would protect a man who had done his work properly.

Dr. F. H. Todd: It has been our custom in cases of threatened suits to have these suits reported to us as councilors, and we in turn notify the insurance company. We have also gone to the doctor threatened with suit

and assured him of the moral support and any support that the members of the society might give him in time of trial. It seems to me that this restoring of the Medical Defense Act is going to make things very confusing. I have talked to men today who are confused about it and who really believed that they were receiving an insurance against suits by the Medical Society, under the old act. That, as I understand it, was not true. It simply means that the society set aside a sum, possibly \$250, which might be increased at the option of the society, in case of trial. But there was absolutely no coverage or indemnity. I think with most of us who take out this insurance it is the indemnity side of it that we are looking for, and so long as we are assured of the moral support of the members of the society I cannot see the advantage of readopting the old Medical Defense Act.

Dr. N. L. Wilson: May I ask Dr. Pinneo how he proposes to pay for this? It certainly is going to take some money.

Dr. Pinneo: The reports of the Treasurer do not show that it was burdensome in former days. Remember the amount is limited. It was the pride of our society that the number of malpractice defense suits diminished; therefore, we need not worry about the cost of, say, \$250 or even \$500. Now Dr. Beling's committee cites a case where the trustees, to the tune of \$2000, defended a member. That is no argument against this, as if every member was going to cost that much. The trustees can vote to any member \$2000 in defense of some case. Therefore, that argument doesn't apply against this because the cost of the Medical Defense Act at \$250 would be small for our treasury.

Secretary Morrison: Since the U. S. F. & G. Company has insured so many of our members, in some counties running up to 97%, the state medical society has not been called upon to pay the legal expenses of any man who has been insured. The insurance company pays all of that, and pays it on appeal. So, it doesn't cost the state society members a cent. Now, since the Medical Practice Insurance provision was written off last year you will notice that the number of insured members has increased by 30%. What does that mean? It means that 320 members who were uninsured have seen fit to get in under cover. In 2 instances, to my personal knowledge, in northern New Jersey during the past year men who had not been insured were sued for malpractice and came to me under the impression that the state society would not only pay their legal expenses in full but indemnify them in case of a suit. That is the confusion referred to by Dr. Todd. When you figure that

any man beginning to practice medicine can be insured against malpractice for a sum of money varying from \$13 to \$16, making a coverage of \$10,000 to \$30,000—if he can't afford to pay that, he had better be driving a bus for the Public Service instead of practicing medicine. When we paid it, the cost to us some years ran up to \$1100, \$1200 or \$1500. Why should the money of our treasury be spent for men who are too negligent and too careless to protect themselves at a cost of \$16 a year against any possible suit? Lord, I wouldn't stay awake overnight worrying over 1 case for all it costs annually to carry this insurance. Why should men unload such a personal burden on the state society?

Dr. Ramsey: As I understand it, it isn't so much that the insurance company can't protect the different members, but, as Dr. Pinneo says, it is the moral support of the other members. They stand on the side lines and help a man out when he gets into difficulties. As far as the insurance is concerned, that can cover it, but the men ought to give their moral support.

Secretary Morrison: The members of the State Medical Society of New Jersey do give their moral support to every member, whether insured or not, in case of a suit. It is no trouble at all to get a member of the state society to testify for you if your cause is just, whether you are insured or not. If you are not insured, they are all the more willing and ready to render sympathetic aid.

Dr. Beling: Perhaps to clarify this situation I may say a few words. The present plan is of course that the members of the society should take out an insurance policy to protect themselves and to indemnify them if and when judgment is brought against them. The former plan was to pay \$250 in the lower courts for the *defense* of the members and *not be indemnified*. When the former plan was abolished, it didn't change the status of the members with regard to the state society nor the interest taken by the state society on behalf of its members. Every case in which there is a suit brought against members who are insured at the present time under the policy contract of the insurance company is referred to the Judicial Council, and the Judicial Council exercises the same function it did previously when it was operating under the old contract; every member receives just as much consideration, and the Judicial Council sees to it that every member is given not only the *moral* support but the *active* support of any member of the state society that the Judicial Council calls upon to assist that member who is being sued. Under those condi-

tions, I do not see, for myself, that we are called upon to spend any more money from the Treasury of the state society.

Furthermore, it was after a very careful consideration, through a period of years, that we arrived at this plan. I know that personally Dr. Hicks and myself were sued. No judgment was brought against us but the expenses amounted to something like \$800, and \$500 was given to us to pay the expenses and we had to pay the balance. At that time in our own county, that is now raising this objection, we had a blanket group insurance policy with the Aetna Insurance Company, and it was the policy that I got from Essex County that enabled me to pay the lawyer's fees. Essex County insured under this group policy. It was from Essex County that I learned this and took it to the Judicial Council. So that now Essex County seems to have a little different idea of the situation.

Dr. Pinneo: I would like to repeat my motion—that the House of Delegates approves of the restoration of the Medical Defense Act and refers the matter to the Board of Trustees.

President McBride: I will ask for a rising vote.

The motion was lost.

Dr. Schouffler: I now move that Dr. Beling's report be accepted and the recommendations concurred in.

The motion was seconded and carried.

President McBride: The report of the Committee on Group Health and Accident Insurance.

Fourth Annual Report of the Committee on Health & Accident and Automobile Insurance

Four years ago this committee was appointed by the then President of this Society, Dr. Donohoe, to negotiate suggested insurance policies on Life, Health and Accident. On life insurance, the laws of New Jersey demand applications from 75% of the members of a society to secure a "group policy", and we were unable, in spite of energetic, strenuous work, to secure applications from more than 22½% of the 2219 members. For accident and health insurance, on the other hand, we were signally successful and after the first failure, from lack of 75% applying, finally negotiated a policy without this requirement—one particularly good for our members, the company being thoroughly high-grade and approved by the State Department of Banking and Insurance—at rates very low for the coverage; as low as \$60 for members up to 50 years of age, not more than \$85 for any age, without limit, and any member of our state society in good standing being eligible.

At the Annual Meeting 3 years ago our report showed success in favorable acceptance of the

proposition by members, and this has continued with growing appreciation of benefits received by members. The agency for the company has been changed and this transition period has lacked solicitations by agents, consequently applicants have not increased in number, but they will under the new régime and zealous propaganda. The more important matter of care for the interests of those insured has thrived and the work of your committee in their behalf has been a satisfaction. This feature of our work is paramount. It has been shown this year in successful negotiations, raising settlements in 1 case from nothing (legally) to \$750; in another from \$50 to \$414; and another from \$128 to \$278. This service is possible by a medical committee acting as an intermediary, and facilitating interpretation of illness on behalf of the insured. Note the value of being in such a group.

HEALTH AND ACCIDENT

Number of outstanding policies	231
Number of claims paid this year	46

Claims paid (in amounts of from \$3.57 to \$1025).

Ages under 50	23	\$3345.99
Ages 50-60	12	1556.42
Ages over 60	11	1275.43
Total	46	\$6177.84

Success of the health and accident policy prompted the suggestion (by President Green) that the society might get group advantages in automobile insurance, and your committee was asked to take up this matter. Policies were negotiated and this year further advantages have been gained in getting a "valued" form (without monthly reduction) on loss by fire, theft, etc. They are standard policies, issued by the Manufacturers' Casualty and Fire Insurance Companies, at rates fixed in the standard tables but from which our members receive discounts of from 20 to 30%. Last October the companies appointed a new agent for the automobile policies, (The Way-Conklin Agency Inc., 605 Broad Street, Newark, Telephone Mitchell 2-0613) who will negotiate with our members all matters concerned; and now the Commonwealth Casualty Company has named the same agency to handle our health and accident policy. The agency is responsible to the companies and its receipt for anything is that of the company concerned. We recommend full confidence in all the agency does for our members.

AUTOMOBILE

Number of policy holders for liability and property damage	106
For loss by fire, theft, etc.	81
Total	187

In the State Society Journal of December 1929, we published a complete concise statement of the policies, both health and accident and automobile, with details, to facilitate answers to all questions members might ask, and to this number of our Journal we refer you. Reprints of the article and an accompanying editorial have been sent to all our members and a few copies are still on hand for distribution upon request.

This year we have incurred no expense at all for the society; an item in the treasurer's report

is for letter-heads the year before. We are managing with the companies and agents bearing all expenses. We do request that some society stationery be furnished, as to other committees, for necessary correspondence.

Respectfully submitted,

Frank W. Pinneo, Chairman.
J. Finley Bell,
Austin H. Coleman,
James S. Green,
Fred J. Quigley,
Chester I. Ulmer,
Clarence W. Way,
Andrew F. McBride, President
J. B. Morrison, Secretary,
Elias J. Marsh, Treasurer.

Dr. Quigley: I move that the report be received and the recommendations of the committee be adopted.

The motion was seconded and carried.

President McBride: The report of Delegates to the American Medical Association and to State Societies.

Dr. Stewart: The Medical Society of New Jersey was represented 100% at the American Medical Association meeting, and each one of us was present at practically every session of the House of Delegates. The doings of the American Medical Association have already been published in our Journal and also in the Journal of the American Medical Association. There was nothing particular, Mr. President, bearing directly upon the state of New Jersey.

I may say, too, while I am on my feet, that I had the pleasure of attending the Medical Society of the State of Pennsylvania, at Erie, as delegate from the State of New Jersey. I was most graciously received, shown a splendidly good time, and heard a splendid program. The Medical Society of Pennsylvania is working upon the group plan, very much the same as we are, conducting various sections during its meeting. They were all well attended, their material was first class and very much meat contained therein. A very great deal of it showed a large amount of research and investigation, and that is really what we are all looking for, and if our own society and the men who are engaged in this investigative work would give us just a little more, Mr. Chairman, of the things that they are learning and they are working out, I believe that we men on the side lines probably might benefit a little bit more than we are doing at the present time. Thank you!

President McBride: You have heard Dr. Stewart's report. If there is no objection, it will take the usual course. That closes up the program for this morning, and we now come to the scheduled afternoon's business. The first order of business is Unfinished Business. Is there any member who has any unfinished business to offer?

Dr. Stahl: For a point of information, I would like to ask a question in regard to the Constitution. I came late this morning. One section of the Constitution states that the Nominating Committee is to meet the afternoon of the first day of the session. Now, is today the first day of the session or isn't it?

President McBride: That is a moot question. I will refer that to Dr. Quigley, the chairman of the committee.

Dr. Quigley: As I said this morning in my report, that confusion has arisen as to the interpretation. I didn't go into a discussion of it, and I recommended that the matter be referred to the Reference Committee on Constitution and By-Laws for a report interpreting this particular section so that its interpretation will not be left to the vagaries of various officials.

Dr. Stahl: It seems to me it is perfectly plain. I don't know where they get the other interpretation. Your program says this is the first day, and if it isn't a session, what is it?

Secretary Morrison: Mr. Chairman, the other interpretation is this, that this House of Delegates is not the Medical Society of New Jersey. This House of Delegates is a body, a part, a committee of the Medical Society of New Jersey. The Constitution and By-Laws provide that it may meet concurrent with, before, or after the adjournment of the Medical Society of New Jersey, and my interpretation is that the first meeting of the Medical Society of New Jersey is that of the General Session tomorrow.

Dr. Stahl: Why is it tomorrow?

Dr. Quigley: May I say that I am one of those who believe that today is the first day of the meeting, and Dr. Morrison, of course, is entitled to his opinion, and for that reason I thought that this matter had better be referred to the full Committee on Constitution and By-Laws, and those who are interested in the discussion will be apprised of that meeting so that the matter may be definitely decided.

President McBride: Is there any other new business?

Dr. Pinneo: Essex County delegation has considered one matter that perhaps should be referred to the same Constitution and By-Laws Committee, inasmuch as it is a matter of constitution. The Constitution provides that February 1 shall be the date of closing the Official List, but Dr. Morrison very creditably published in the May Journal 253 additional names. Now, inasmuch as this year and hereafter the allotment in this House of Delegates depends upon the Official List, the question will arise during the year, as already since February 1, when the first Official List was published. A great many men have been

disappointed that their names did not appear, and some of those who paid just after February 1 understood definitely that they would be considered in the Official List until they began to get letters from the A. M. A. that they were not members. Our delegation, therefore, would suggest, if it can be properly done, that this list of 253 names published by Dr. Morrison as in good standing, in the May Journal, should be officially declared as a part of the year's Official List. As this is a matter for the Constitution, I move that it be referred to the Committee on Constitution and By-Laws.

President McBride: That was referred at this morning's session.

Dr. Pinneo: Pardon my absence.

Dr. Alexander: May I call your attention to the fact that that motion was not referred this morning. I made the motion that a certain section of the by-laws be suspended to permit such action and explained my reason for making that motion, and it was that motion which was amended to be referred to the Committee on Constitution. Now, that amendment prevails, and therefore by referring that motion to that particular committee, the only thing the committee could do would be to decide whether or not my motion was constitutional or not, namely, the motion to suspend the By-Laws. So, I believe that Dr. Pinneo's motion at this time is quite proper to supplement the first motion.

President McBride: You can't suspend the Constitution, Doctor.

Dr. Alexander: I said the By-Laws.

Secretary Morrison: This is a provision of the Constitution, not of the By-Laws.

Dr. Alexander: They haven't reported on that, and therefore the only motion they have to consider is whether or not my motion was according to the Constitution or not. This again would be a separate motion.

President McBride: I have no objection at all to having Dr. Pinneo make his motion, and if it is seconded having the House of Delegates decide on it if it is desired.

Dr. Stahl: I will second Dr. Pinneo's motion. It seems to me if men pay their dues, say, by the fifth of February, which is almost 10 months in advance, they certainly shouldn't be deprived of their representation. I don't think that any other society would do that. It looks to me as if they should certainly have a chance of representation, and I will second Dr. Pinneo's motion.

Secretary Morrison: I call your attention to the fact that if names sent to the Recording Secretary's office after February 1 are added to the list, every name added up to December 31 will have to be added to that list in justice

to the other members who are delinquent, and then you might as well have no official list, or else we might better leave it open until the end of December before it is published.

Dr. Pinneo: I will make one further remark only, that this of course only applies to this year, and I would be the last man of the society to vitiate the strength of having an official list published at a given time, but these 253 that were just a little late, whose names were published this one month—and Dr. Morrison in his introductory remark in the May Journal says it will not be done again—inasmuch as our Constitution and By-Laws has only just gone into effect this time, and inasmuch as we secretaries have been bothered and are bothered often with inquiries as to why they are not there—I thought we might make an exception this time.

Furthermore, in our own society we have adopted new by-laws for our own dues which make it easier for all the dues to be paid by the first of January.

Dr. Pinneo's motion was put to a vote and carried.

Dr. Quigley: There is just one other matter that I wanted to speak about with regard to the Constitution, and that was the matter of the alternate delegates. There have been quite a few of the members who have spoken to me about it. The matter of alternate delegates is one that comes particularly within the province of the Secretary, and I hope that Dr. Morrison will say a word on it, but the section of the Constitution having to do with alternate delegates reads that "each component society shall elect, at its annual meeting, an alternate delegate for each delegate, and the latter, if unable to attend annual meeting (or any regularly called meeting) of this society, shall assign his delegate's card to his alternate. The interpretation which I place upon that is that it does not mean that there is necessarily a particular alternate for a particular delegate. In other words, if you elect, what you must elect, an equal number of alternates, if a delegate is unable to attend, any one of the eligible alternates may take that delegate's place. If that were not done, certainly in some of the smaller counties I am sure that the delegations would not have their full strength. I would like to have Dr. Morrison say something on that.

Secretary Morrison: There is on file in the registration desk a complete tabulated list by counties of all the alternate delegates, and when a delegate is not able to be present and sends in his card, any alternate in that list will be given his place.

President McBride: Is there any other new business? If not, we will now hear the address

by Dr. Morris Fishbein, Editor of the Journal of the American Medical Association, on "The Cost of Medical Care."

Dr. Morris Fishbein: Members of the House of Delegates of the New Jersey State Medical Society: The problem of the cost of medical care is one of the most important problems confronting the profession today, as all of you of course know, at least those of you who are somewhat familiar with medical literature and who attempt to keep up with the economic problems in medicine as well as the problems that are purely of scientific importance.

It is not a secret to anyone who has watched the trend of medical practice, particularly in the last 50 years, that there has been a great change in the nature of medical practice. Fifty years ago, practically all of the work in medicine was done by what was called the old-time practitioner. The old-time practitioner, when he called to see a patient, would usually limit himself to a taking of the pulse, perhaps to some attempt to get at what was called a scientific history of the case, a recording of the temperature; he would listen to the lungs and to the heart and attempt to map out their various borders, and on the basis of this, and particularly on the basis of his knowledge of the family and the various disturbances that had assailed the family and the neighborhood over a given number of years, he would make a diagnosis. In most instances, his diagnosis was correct according to his time, for the simple reason, that he was a profound student of the natural history of disease.

Our knowledge of the natural history of disease goes back at least to the time of Hippocrates, and if any of you are familiar with the writings of the Hippocratic school of medicine, you know that in the case reports recorded by Hippocrates and his pupils, cases were described so definitely, as they proceeded unmodified, that it is possible for any learned physician of today to make a diagnosis in the light of modern medical science. Since that time, of course a great change has come upon the practice of medicine, that is marked primarily by the growth of specialism in medical practice. Today there are among all physicians 4 out of 15 specializing in some particular department of medicine; out of every 15 physicians in this country, 4 are specializing in some 1 department of medicine and are not concerning themselves with disease in general or with the human body as a whole.

In the American Medical Directory of 1910, there were less than 10,000 specialists. In the American Medical Directory of 1925, there are 15,000 specialists. In 1928, there were 19,000 specialists; in 1930 the number of

specialists has increased to over 25,000 out of 150,000 physicians listed in the directory.

In 1915, 30% of all graduates in medicine had already signified their desire to take up a specialty; whereas in 1920, 51% of young men graduating from medical colleges indicated that they had already chosen their specialty and were going into some special branch of medical work. Out of 275 American physicians studying in Vienna less than 6 months ago, 250 were studying otolaryngorhinology, indicating that their eyes were on a particularly narrow branch of medical practice and one which is associated, let us say, with a considerable amount of income in return for a goodly amount of mechanical deftness. In other words, they were concerned primarily with that branch of medical practice rather than with an attempt to diagnose disease and to control disease on a great, general, humanitarian basis.

The nature of medical practice has also changed considerably since the year 1900 by the growth of all sorts of unusual experiments in the nature of medical practice. Since 1900, we have had the development of all types of clinics, of group practice, of commercial practice, of industrial practice, and of specialistic practice by physicians of one type or another. So that we have had a great change from that point of view.

In 1900 there were less than 1000 hospitals in the United States. In 1930, there are almost 8000 hospitals in the United States. In 1890, there were 318 nurses graduated from the nurses' training schools in the United States. In 1930, there are over 20,000 nurses graduated from the nurses' training schools in the United States, and it is predicted by the Committee on the Grading of Nursing Schools, that by 1950 there will be 50,000 nurses graduated from the nurses' training schools in the United States. So that the practice of medicine is spreading out from the physicians themselves to a tremendous group associated with medical practice.

There are in the United States about 150,000 physicians practicing medicine. The actual number of people engaged in the practice of medicine is 2,000,000. These 2,000,000 people include 150,000 physicians, approximately 200,000 nurses, a considerable number of pharmacists and dieticians and technicians, and roentgenologists and laboratory workers, ambulance drivers, cooks, pharmacists, and a great many others who will prescribe on the slightest provocation, with or without diagnosis, and all of whom attempt to treat disease in some fashion or other.

There are at least 22,000 charlatans divided up among a great number of cults—the

naturopaths, napropaths, osteopaths, and almost any strange path into which any strange mind may choose to wander.

You see that here we have an extremely unusual situation. We have a great change in the nature of medical practice, and in the people who are doing the practice, and all of this has brought, particularly to the minds of the public, the whole question of the cost of medical care.

Now, the *cost* of medical care represents not only the amount of money actually spent upon physicians, but the amount of money spent upon all of these accessories to medical practice, and a considerable sum of money spent because of the changing nature of medical practice. The old-time physician making his own diagnosis, doing all of his own laboratory tests, charged a certain fee which was the fee for his service. The fee of the modern physician represents not only his service but the service of a considerable number of people who may be associated with him in all of his work, not only in the diagnosis of disease but in the prevention of disease and in the treatment of disease.

The Commission on Medical Education, which looked particularly into the work of the general practitioner in cities of from 25,000 to 50,000 in the United States, found out that 55% of the work of the general practitioner today is done in the home, 35% of his work is done in his office, and 10% of his work is done in the hospital. That represents the major portion of the work of general practitioners in towns of approximately 50,000 people, but when you come to consider the great cities you have again an entirely different situation because life has changed greatly in our great cities. It has speeded up, and the nature of medical practice has changed in accordance with the changes that have taken place in human life.

The old-time man used to live in an old-fashioned home, in which it was fairly comfortable for him to be sick, where he could have a room to himself, separated off from the rest of the family; he could have a practical nurse or his wife could attend to the nursing. People did not live in these cliff-dwellings which represent the type of living in the modern great city; great barracks in which the entire family life is lived in one room with a stove attached. The old-time home has practically disappeared. It has been said that today a home is merely a place in front of a garage, the whole idea being to get out of the home as soon as possible and be going somewhere else. Now, it used to be quite convenient to be sick in a home, but you take a one-room kitchenette and let some

member of the family develop ozena or chronic inflammatory rheumatism, and it interferes with the bridge game and listening to the radio. You simply have to get that fellow out into a hospital because he ruins the family life. Furthermore, the rise of feminism has made a great change in the nature of medical practice. In the old days, the mother of the family did a considerable portion of the nursing in times of illness and was exceedingly helpful. In the modern family, particularly in large cities, among the white collar class the mother is earning an income at the same time as the father of the family, and if the father gets sick there is all the more reason why the mother should continue her work in order to maintain a portion of the family income. So the mother continues at work and the father is stowed away in a hospital where he receives the tender ministrations of the physician and all of these associates whom I have mentioned.

This is the thing that has given a great deal of concern to sociologists and economists and philanthropists of one type and another who are particularly concerned with medical practice. They have looked into the situation with a rather philosophic point of view, and they have seen the things that have been done in industry in a big way. They look at the average man in the United States, and they tell us that all people are divided into 3 classes—the rich and the middle class and those who still have their tonsils. That is just an arbitrary classification, but we can divide them into the rich and the poor, the upper middle class and the lower middle class. The rich, they tell us, get all of the very best of medical treatment, and the poor, they tell us, also get the very finest of diagnosis and treatment because they are used as subjects in times of illness, but this great middle class, and particularly the lower-middle class, is not being satisfactorily treated.

In the first place, we all know very well that the poor do not get the same type of medical treatment that is given to the rich. It is true that in charity hospitals, where they are used for teaching, the poor do get an accurate diagnosis, but let a patient have pneumonia and let him lie out in the middle of an 8 or 10 or 12 or 24 bed ward, where he is treated by an attending physician who calls once each day, where he divides a nursing service with 12 other or 23 other patients, and 2 nurses coming on in 12-hour shifts, and where he gets such tender ministrations as the hospital may have over from its endowment; and compare the type of medical treatment he gets with the type of treatment that is given to a very rich man who lies in a

private room and who has 3 shifts of nurses working 8 hours each, and who has all of the benefits of physical therapy and personal attention, and who most of all does not have the slightest worry as to what is happening to his business and to his family and to his home while he lies there sick in bed; and he is going to have a much better chance of recovery than the very poor individual who is dependent upon the ministrations of the state.

It is absolutely unsound and uneconomic to say that the poor are given the same type of medical treatment as is given to the rich. It is one of those generalizations which all of us accept without taking the trouble to look into it quite carefully. But let us grant that the poor get the very best of medical diagnosis, we then come to a consideration of what happens to the middle class, and it is about the middle class, or the white collar class, particularly that the sociologists and the economists and philanthropists are especially concerned. Now, they are very anxious indeed to apply to this great middle class the type of organization that they have seen work out in the great factories and great industries of our country. We all know that America's greatest contribution to modern civilization has been *organization* and *mechanization*. Perhaps this thing has gone a little bit too far. They tell a story of Henry Ford being carried to his grave by 6 pall-bearers and suddenly sitting up in the coffin and saying: "If you boys will put some rollers under this, 4 of you can lay off and help the undertakers put the people into the carriages." It is a kind of complete departure from sentiment or natural living that is associated with tremendous organization or mechanization.

There is a great attempt to apply that same organization or mechanization to modern medicine and, in order to give you some picture of how the thing might work if it actually were applied to modern medicine, I have endeavored to work out what would be called a great tonsil emporium for the future. Let us suppose that industry has succeeded in mechanizing and organizing medicine as it would in order to lower the cost, in order to give the man special service for each part of his illness and troubles which may accompany him, and you get a picture something like this: Here is a great industrial plant, and here is a robot, Number 91, who spends all of his time each day turning nut 49 on axle 50. It has been suggested that they tie a brush on the back of him so that he could keep the street clean while he was turning the nuts, in order not to waste the motion of his body, but that has not yet been put into effect. He is working here turning this nut,

and it is discovered by the factory physician, who is employed full-time for that particular purpose, that he has some inflammation of the tonsils, and he is told to go to Tonsil Clinic 36 on the next day and report at 9:42 in order that he may get the benefit of modern medical science. He arrives at Tonsil Clinic 36 and his clothes are automatically removed from him by a lot of fingers that come down, and then he passes under a hot shower bath and he is treated by a blast of hot air in order to dry him off rapidly, and proceeds at once to a man known as C. S. 45, the Cocain Smearer, who smears his throat with cocain. Then he goes on to P. P. 32, the Procain Pusher, who pushes in the procain at the particular points in order to relieve his reflexes and keep him from disturbing the doctor. Then he proceeds on his own power to R. T. S. 35, a right-handed man, the Right Tonsil Snatcher. This right-handed man takes off the right tonsil. Then he goes on his own power to L. T. S. 35, the Left Tonsil Snatcher, who removes the left organ. Having removed this organ, he finds it necessary for him to have attention from H. I. 43, Hemoglobin Inspector, and M. R. 34, the Mucous Remover. And so he goes, and finally he is no longer able to proceed on his own power and he is dropped into a chair. The chair is put on a traveling belt, and he is carried into Ward 46 and deposited in Bed 32, where he is visited at regular intervals by I. B. B. 42, the Icebag Bringer, and B. P. B. 68, the Bedpan Bringer, each one of these specialists coming in at a regular hour in order to take care of him. They are followed by the Hemoglobin Inspector, the Mucous Remover, and so on. On the next day, he gets up, and again on his own power he goes out through Door 43, through Shower Bath 46, through Hot Air Blast 29, his clothes are returned to him, he goes to Cashier 21, who charges him just what he had in his clothes when he came in at the front door, and out again and back to the factory, where he puts Nut 49 on Axle 50 for the rest of his life, being relieved of his tonsils, until some other disturbance happens to him.

That is a comical description of a clinic, but if you were to go into Chicago today and visit the Public Health Institute of Chicago, set up by a great many millionaires with the assistance of a physician who is more of an efficiency expert than a physician, you would find much the same thing going on there in the treatment of venereal disease on a large scale. You will find dozens of patients lining up in front of the troughs, lining up according to numbers. Holes are punched in cards indicating the family history, what particular

organ with which he is concerned, and so on. One of my friends coming in there and finding one of these history sheets with all of the holes punched in it, took it home and put it in the automatic piano, and it played "Nearer My God to Thee". In the same way, in the section of the clinic that is devoted to syphilis, the patient comes in and gets a Wassermann Test for 25c, complete physical examination for \$3, and a cardiographic tracing with an automatic interpretation for another \$3. I don't know why he needs that every time, but he gets it whether he needs it or not. They are lined up on tables, and the arsphenamin runs on an overhead trolley, and the syringe is trained and the needle changed automatically, and it works perfectly.

It works as perfectly as a story of which I have some knowledge of a compatriot who went into a tall office building and climbed up to the twelfth floor. He went into the first office that he saw, and there was a sign out there, "No beggars or peddlers allowed", and he attempted to sell them something. The man grabbed him and kicked him down to the eleventh floor, and when he reached the eleventh floor, another man was there who kicked him down to the tenth floor, and so on at each landing a man came out and shot him down another flight. When he got on the sidewalk, he turned around and looked at the building, and said: "Mine God! vat a system!"

That, of course, is the thing that they are endeavoring to do with modern medicine, and we all know that when you put medicine upon that basis of efficiency, you are going to interfere very greatly with the things that medicine can accomplish for the human being, because so long as men continue to be men, and not merely robots or disturbed machines, it is not going to be possible to handle them satisfactorily in that way, and that, by the way, is a subject to which I am going to return a little later.

Now let us look at what the average American, or what Americans in general spend for their medical care, and let us see how it is going to be possible to distribute that same amount of money and get the best possible type of medical care for the people all of the time. It is reported that the medical bill of the nation approximates \$2,800,000,000 annually. Of that \$2,800,000,000 annually the physicians get \$500,000,000. The druggists and those who sell accessories to medical practice of all types get \$750,000,000. The nurses, the pharmacists, the dieticians and all of those who are associated with that form of medical practice get another \$700,000,000. The quacks of all types, including Christian

Scientists and osteopaths and all of the others that I have mentioned, get \$125,000,000; and \$90,000,000 annually is spent for preventive medicine; \$90,000,000 as compared with a total outlay of \$2,800,000,000. The \$2,800,000,000 which is spent for medicine represents 3% of the entire annual national budget of \$90,000,000, and the \$90,000,000 representing the entire amount spent for preventive medicine annually represents less than 1% of the total sum spent for all medical purposes; 3% of the total sum spent for medical purposes and therefore less than 1% of the entire medical bill of the nation. Now, this is the amount of money that we spend to keep people in health and in order to cure them when they develop disease.

The average family spends \$80 a year for medical care as compared with considerable sums of money spent for other purposes, of which I will have more to say later. Consider for an instant just the \$500,000,000 that is paid to the physicians. The amount of money saved last year for Christmas savings in banks, in savings banks, was \$500,000,000, exactly the same amount that was spent upon physicians during the entire year, and this \$500,000,000 saved in Christmas savings was most of it spent on trifles on one type or another that were purchased and used up within 2 weeks after Christmas. If the American people can learn to save \$500,000,000 a year for Christmas savings to be spent upon luxuries and trifles, they certainly can learn to spend the same amount for medical care and to save it up for that purpose in order that they may be able to pay their physicians when that time comes, particularly when we realize the value of a man to the community and what it is that medicine can do for him.

I am going to come back shortly to the other question, which has to do particularly with the question of how the money is distributed and what the nature of practice shall be in the future. I have mentioned the way in which the hospitals have come into the field and have changed the entire nature of medical practice. It is important to realize why the hospitals have developed from 1000 hospitals in 1900 to almost 8000 hospitals in 1930. The reason for that is, of course, first of all the demand for clinical laboratory. The reason we have a demand for a clinical laboratory is the fact that the great majority of physicians have been taught to depend upon glassware and machinery rather than upon brains for making the majority of diagnoses. That may seem like a very strong statement, but it is a very important statement to realize. It is much more important to have a 48 caliber brain than a 48-inch waist measure, in

order to get proper results in the practice of medicine. Nevertheless, the public not infrequently chooses its doctor because of a 48-inch waist measure or because he belongs to the Elks or Masons or Printers Union, rather than particular competence in some field of medicine. It has been proved absolutely that 90% of the complaints for which patients consult physicians can be diagnosed and treated by a doctor with the amount of equipment that he can carry in a hand-bag, provided that he has the right amount of brains to apply to the use of that equipment. Instead of that, we have had this tremendous development of all sorts of "tests" which have come into medicine and which are not infrequently tried upon the patient without a clear understanding of what their actual value may be. There are very few instances in which it is necessary to have a non-protein-nitrogen determination, or, let us say, even a Wassermann or a Kahn test, or where it is necessary to have any of the other very important tests—there are very few instances in which it is necessary to have a Van den Bergh reaction or indican determination, in which it is necessary to have a quantitative blood chemistry analysis in order to find all of the various ingredients. Sometimes these things are important, but the way in which one knows when they are important is first of all to know his scientific medicine and to judge from his general examination of the patient, with all of the clothing removed from the patient, whether or not those tests are necessary.

Now, it is much easier not to remove any of the clothing at all, but merely to take from the patient's orifices, wherever they can be located, anything that the patient happens to expectorate or emanate or get rid of in some other fashion, and to shoot that into a laboratory and to assemble all that data on a 48-page history, and on the basis of that to make the diagnosis, but that, of course, represents an entirely different thing than the scientific practice of medicine with all of the best interests of the patient in mind. Physicians tend to follow trends according, of course, to the literature of the time and to the discoveries that have been made, and the public attempts to persuade physicians to follow those trends because the public not infrequently is also educated in wrong lines as to what the physician can do. Let a new accessory to medical practice such as lipiodol be discovered, for instance, and anybody who has a syringe and some lipiodol commences shooting that into every possible orifice and taking a picture of what that orifice looks like with the lipiodol; and my main grievance

is that just as soon as he has done that in 6 cases he sends a paper in to the Journal and wants that paper published, which, of course, makes a very special difficulty for the editor under those circumstances.

Because of this special interest which has been put in the laboratory, laboratories began to increase tremendously. Just as soon as commercial laboratories began to increase, that raised the cost of medical practice. The hospitals then decided to carry on the laboratory work rather than to have it carried on by physicians, and so hospital beds increased from 1909 to 1927 from 421,065 to 753,318 hospital beds. In the same period, of 1922 to 1927, clinical laboratories increased from 3035 to 4357; or 43%. In the same period of time, x-ray departments increased in hospitals, from 1922 to 1927, from 2841 to 4387; or 54% increase. So that today from 67 to 70% of all of these 8000 hospitals are fully equipped with diagnostic laboratories, with x-ray laboratories, and when the hospital gets an x-ray laboratory which must be sustained out of the income from patients, it is not at all infrequent to depend for a diagnosis of a gastro-intestinal disturbance of a minor nature on a serial set of pictures of the gastro-intestinal tract, taken from the lips to the last sphincter, whether the patient needs it or not, in order to make the simple diagnosis that the patient is suffering temporarily with cramps or indigestion or dyspepsia, as it used to be called, for the simple reason that he has been quarreling with his wife because the coffee was cold at breakfast. In the old days, a very thorough taking of the history might have revealed that very elementary fact, but instead today a serial set of pictures of the gastro-intestinal tract is ordered and the diagnosis made on that basis because everything looks normal in the picture.

Hospital costs have increased tremendously from 1915 to the present time. In 1915, hospital costs varied from \$2.35 per day per patient in the hospital. Today hospital costs are practically never less than \$5.35 per day per patient in the hospital; and there are hospitals today in many of the large cities where the actual cost to the hospital, of the service, is anywhere from \$11 to \$12 a day for each patient taken care of in the hospital. Obviously, when your actual cost in the hospital varies from \$6 to \$11 per day per patient, it is not possible for the white collar worker to stay in the hospital very long at that price. The figure is far beyond any amount that he can save up in order to protect himself against an illness, and in order to take care of his family while the illness goes on.

In the period from 1913 to 1927, commodity costs increased in the United States by 47%. In the same period of time, hospital costs increased in the United States by 66%. So that the actual cost of the care of the patient increased 20% over the general cost of living; but in addition to that the actual cost to the hospital of the care of the patient increased by 125%. Now, there is a discrepancy of 60% between the actual cost to the hospital and the increase in cost to the patient of a stay in the hospital from the period of 1915 to 1927. It should be very obvious to everyone that this has to be taken care of in some way. It has been taken care of largely by increased endowments for hospitals from millionaires, from philanthropists of one type or another, from cities and communities, and in every other possible way that a hospital may have in order to raise its endowment to meet costs. In Pennsylvania, out of 149 hospitals receiving state aid, the per capita cost was \$4.14. The state paid 59c, and philanthropy took care of the remainder. In 1915, the average stay of a patient in a hospital after an operation for appendicitis was 15 days. In 1927, due to the advance in modern medical science, improvements in anesthesia, improvements in post-operative care, improvements in general medical knowledge, the average stay of the patient in the hospital after the operation was shortened by 3 days. There you see again an attempt to fit together the 2 very fundamental things, the cost and the return, through the lowering of the number of days from 15 days to 12 days of staying in the hospital after the operation. The cost begins to equalize itself because he doesn't have to pay for so many days even though he pays a great deal more than he used to pay.

In the meantime, another change has gone on in the United States, and that change is best reflected in a report called *Recent Economic Changes in the United States* published by President Hoover in March of the year before he was elected to the presidency, published by President Hoover as Secretary of Commerce and as the head of a distinguished committee of some 25 economists and philanthropists and millionaires—Raskob and Owen Young and many others were on this committee—men who actually studied the way in which the money of this country is spent. They found out also some very interesting facts concerning economic conditions as they exist in the United States. Of course, one of the most interesting things they found out, as you will see if you will go back and read this report, was that the country was living on an inflated scale which simply could not continue, and that prices were bound to

fall, and that what was called *prosperity* was a *delusion* and a *snare*. That was all known well in advance of, let us say, the last election. But in addition to that they found out some very important facts concerning the changes in the standards of living of the American people.

In the first place, labor had begun to change from a 7-day week, and then a 6-day week, and then finally to a 5-day week with 8 hours a day, and then changed that down to 7 hours a day; and one of the difficult problems of the present is to tell labor what to do with its spare time. A large portion of that is due to the coming of machines which have released a tremendous number of men from that sort of work; 25% of the people in the United States today are working in occupations in which they wait on other people. They have changed from a productive class into a serving class. The group which has amassed the money is living on a luxurious scale in which 25% of the people in the country are waiting upon the other people. In addition to that, some of them, of course, are engaged in the tremendous development of the amusement industry. That is a thing of the greatest importance because if you will watch the trend of production—and it is all reflected in stock prices and in every one of these other economic factors—you will see that whereas United States Steel was the major interest of the United States in 1902, amusement enterprises are the major interest of the United States in the stock market today. That represents a change in the development of mass amusement, mass employment of the people. The spare time has caused the growth of these amusement industries. Whereas men used to attend football games in groups of 5000 to 6000, they now attend in groups of 65,000 to 100,000. Whereas they used to go to theaters in groups of 300 to 400, they now go in groups of 5000 to 6000 to the movies. Whatever they do now is done on a mass scale, and a tremendous number of people are concerned with the development of this amusement industry.

In addition to that, we have had since 1905 the development of the motor car. Gradually more and more people have purchased motor cars so that the United States today has more motor cars than all of the rest of the world put together. We had in the United States in 1910 1 motor car to every 265 people. We had in 1917 1 motor car to every 22 people. We had in 1919 1 motor car to every 16 people. In 1925 we had 1 motor car to every 6 people. In 1928 we had 1 motor car to every 4 people. And if you read the Saturday Ev-

ening Post you will see that all the concerns are now advertising that you must be a 2-car family. That is the only way in which they are going to get absorption of this tremendous development in the motor car industry which began about 1915.

When you look at the way in which these motor cars are purchased, you find that 38.6% of the motor cars are purchased for cash and 61.4% are purchased on the instalment plan. Of the motor cars that are purchased by merchants, manufacturers, professional men, they are purchased 1 for cash as compared with 1 on the instalment plan. But when they are purchased by clerks, firemen, policemen and what is known in general as the white collar class, they are purchased 2 on the instalment plan to each 1 that is purchased for cash. And that of course represents again a considerable answer to the question as to why it is that the white collar class is complaining about the cost of medical care. When they are purchasing radios and cosmetics and tobacco and motor cars as the 4 items of greatest advertising importance in the United States, you recognize why it is that we have a problem of the cost of medical care. The greatest amounts of money spent in the United States for advertising in recent years have been spent for tobacco, for motor cars, for radios, for electric refrigerators, for foods, and for cosmetics. That all is reflected in the changing style of living of the American people. The advertising has caused them to raise their standard of living, and by raising their standard of living they have created a problem of the cost of medical care. The tobacco bill of the nation for cigarettes alone is \$2,000,000,000 a year, as compared with \$2,800,000,000 for the entire medical bill of the nation. And that will give you some idea of how important our medical problem is to the public when the people spend on cigarettes alone almost as much as they spend for preventive medicine and for all of their medical care during any single year.

We have there a question which confronts the medical profession in various ways. All of these statistics, of course, have a definite bearing on the point that I am trying to raise, and that is that when we consider the cost of medical care it is simply impossible to separate that consideration from the general economic consideration. We have to consider what people are spending for food, what they are spending for clothing, what they are spending for luxuries. We have to consider the advance of medical science. We have to realize that when these things take place they must be paid for by somebody in some way, and therefore the thing comes

back to this point, that if the medical profession wants the public to pay the actual cost of medical care, the medical profession must educate the public as to what constitutes adequate medical care for various conditions. We must educate the public as to what constitutes luxury in medical care; must educate the public into a realization that medical care is just as important, if not more important, to happiness in human life than any other of these factors for which they pay so greatly, and when your public is educated to that realization, as they must be, through the schools and through the colleges and through the industries and through all of the other ways in which the public is educated, they will begin to look at the problem of medical care in an entirely different light, because big business has found that this advertising or education or propaganda or whatever else it is that you want to call it, can educate the public to buy anything that they want them to buy. They can educate them from spending \$40,000 per year for cosmetics in 1890 to spending \$200,000,000 per year for cosmetics in 1930, and so on. They can educate them regarding every single factor in modern life. It is just a matter of education so far as it relates to these particular things. But in addition to that we have to consider the entire trend of medical practice. We have to educate the public into a realization of what constitutes an adequate scientific diagnosis, into what constitutes adequate nursing service, into what constitutes scientific drug therapy and actual drug therapy.

It may be taken for granted that of the \$750,000,000 spent each year for drugs and medical apparatus of one type or another \$375,000,000 is wasted. This \$375,000,000 represents patent medicines, fake ultra-violet ray apparatus, radium belts, radium pads, all sorts of bogus devices for which the public spends its money, again because it is a badly educated public so far as concerns the human body. We must educate the public into the fact that of the \$125,000,000 spent for fake healing and magical healing of one type or another in this country every year, all of it is wasted, and if we will combine the \$375,000,000 and the \$125,000,000, you have \$500,000,000 which is exactly the amount of money that they give to the medical profession for their care.

We have the whole question of prenatal care and obstetric care, what is proper in that circumstance? There was a time not so long ago when the vast majority of mothers gave birth to their progeny in their own homes. The vast majority of mothers of the white

collar group and of the group beyond that today insist on a hospital as a proper place of accouchement for the coming generation, and when they get to the hospital they insist on a private room, they insist on all of the special care, and it has been found in an analysis made not so long ago by Richard Bolt that the amount of money spent by the average family for taxi bills to and from the hospital, for flowers, for candy, for books and for other things to give the patient a great deal of pleasure and enable her to meet with satisfaction the onslaughts of the neighbors, that that sum represents much more than is paid to the physician for the family's care during that period. There again you have a matter of education. You have the whole question of nursing service. Is it necessary for the average patient the fourth day after obstetric care to have a day nurse or a night nurse, or is it possible for that patient to get along with the services of a nurse working under a group system whereby she takes care of the needs of 4 patients who need practically nothing else than a manicure and a face wash twice a day? That is a situation which represents a tremendous sum wasted in medical care because your public is satisfied not with the scientific requirements of the situation but entirely the question of pride.

In addition to that, we have to look into the entire question of education of the physician of the future, so that he will realize that a well-balanced physician who is a general practitioner can take care of 90% of the complaints of patients who come to him with just the amount of equipment that he has in his office or that he can carry with him, and that a great many of these other things represent useless luxuries which he has become accustomed to because the physicians who taught him in his college were much more concerned in some particular piece of research that they were carrying out than with the question of what he was going to be after he got out into practice. That is a situation which goes back into the very fundamentals of medical education.

I think I have shown you that all of these things come back to a realization of the nature of this problem. We must realize that the problem of the cost of medical care is not something that can be turned over to a mathematician with a comptometer and a pencil for him to solve. The problem of the cost of medical care must be solved primarily by the medical profession. It must be solved by the medical profession because only the medical profession knows the answer or can find the answer to the problem.

The philanthropists and sociologists and economists and financiers who have attempted to answer the problem have attempted to answer it, first of all, by group clinics of which the Mayo Clinic is the most startling example, but which certainly has not proved to be the real answer to the problem else there would have been by this time hundreds of similar clinics throughout the country; that is a phenomenon in an anthropologic sense such as is likely to occur once in a century when a woman gives birth to a baby with a spina bifida at one end and a hydrocephalus at the other at the same time.

Then you have industrial practice. Industrial practice is not the answer to the situation. It is not proper that the industry which employs a man should be entirely responsible for his medical care. You have compulsory health insurance. That is synonymous with everything against which America fought when it fought its revolution way back in 1776. Compulsory health insurance makes a degraded population, a population which is always endeavoring to beat the government by getting sickness insurance, by getting disability paid. It causes physicians to give fake certificates, to provide unnecessary remedies. It is the most wasteful form of attempt to answer the thing that could possibly be had. Compulsory health insurance is absolutely inconsistent with everything that is known as American ideals both in government and in science, and in economics. Attempts have been made to find the answer

through university practice, through lodge practice, through contract practice, and every one of these things has failed when an attempt has been made to install it upon anything except a very narrow, local scale.

In Birmingham, Alabama, where they have one form of contract practice and where the physician finds it necessary to see 90 to 100 patients every day, the patient practically has to meet the doctor naked on the doorstep if the doctor is going to get a look at his skin at all. Usually about all the doctor does is come around and hand in the prescription and pass on to the next patient, and that satisfies him until the next visit. If the man gets something serious the matter with him, he is hauled over to the company hospital.

When scientific study is made, we come back ever and ever again to this point, that as long as the human being remains a human being he must be treated as such. The only way in which he can continue to be treated as a human being is to be treated by a physician who knows his name, who knows his family, who knows him as a human being, and not as a disordered machine. The answer when found must be found in that system, and I am confident that with the kind of leaders we have in American medicine today American medicine will find the answer. Thank you! (Applause)

President McBride: Dr. Fishbein, in behalf of the society, I want to thank you for this very able presentation.

The meeting adjourned at 5 o'clock.

GENERAL SCIENTIFIC SESSION

Thursday Morning Session, June 12, 1930

The meeting convened at 10:10 o'clock, in Vernon Room, Haddon Hall, by President McBride, who said: We are going to depart from the regular order of business this morning. Dr. Riesman was first on the program, followed by Dr. Lahey, then Dr. Stroud, who in conjunction with Dr. Bromer, has prepared a very interesting paper, but Dr. Stroud has been called away, and I am going to ask Dr. Bromer to read the paper.

Dr. Bromer read the prepared paper entitled "Indications for Digitalis Therapy in Cardiovascular Disease, and Its Method of Administration".

President McBride: I know we have all enjoyed the very excellent paper by Dr. Bromer. We are very fortunate indeed in having with us this morning, Dr. David Riesman, of Philadelphia, whom many of you

know, and whom many have had the privilege of listening to before. It affords me great pleasure to introduce Dr. Riesman, who will speak to us on "Nephritis and Nephrosis, with Special Reference to Preventive Treatment".

Dr. Riesman presented his prepared paper. Dr. George N. J. Sommer took the chair.

Vice-President Sommer: It gives me great pleasure to introduce the next speaker, Dr. Francis H. Lahey, of Boston, who will discuss the question of "Diagnosis and Management of Goiter".

Dr. Lahey presented his topic with illustrations by lantern slides.

Discussion of these papers followed by Dr. Morrison.

Chairman McBride: Anyone else care to discuss these valuable and very able papers?

If there is no further discussion, I want to express the appreciation of the society to the

gentlemen who have given us these very excellent papers this morning. We have been greatly enriched, and I am sure the lack of discussion is the result of the excellence of the papers and the thoroughness with which the fields were covered.

If there is no other business, we will now adjourn until the afternoon session.

The meeting adjourned at 12 o'clock noon.

Thursday Afternoon Session, June 12, 1930

The meeting convened at 2:30 p. m., President Andrew F. McBride, presiding.

We are very fortunate in having with us Dr. Harry M. Hall, of Wheeling, Ex-President of the West Virginia Medical Society, who will address us on "Second Thoughts upon René Descartes".

Dr. Hall delivered a very interesting address.

President McBride: We are all exceedingly grateful to Dr. Hall for his very wonderful paper.

We will now hear from Dr. L. B. McBrayer, Secretary of the North Carolina Medical Society, who will speak on "Quo Vadis—or Trends in the Work of the Medical Profession".

Dr. McBrayer read an excellent, thought-stimulating paper.

Chairman McBride: I know that I voice the sentiment of the society when I express its appreciation to Dr. McBrayer for his very able paper.

Now these papers are open for general discussion. Anyone who wishes to discuss either of these papers may do so. (After delay) I do not believe the papers lend themselves to very extensive discussion. We are very happy in having both Dr. Hall and Dr. McBrayer with us today, and we are grateful to them for the very excellent character of the papers that have been presented.

If there is no further business, we will now adjourn.

The meeting adjourned at 4:30 p. m.

Friday Morning Session, June 13, 1930

The meeting convened at 10 a. m., Dr. Andrew F. McBride presiding.

President McBride: We will now begin the morning's session. The first paper on the program this morning is "Duodenal Stasis: Types, Causes, Symptoms, Radiologic Diagnosis, and Treatment", by Dr. Charles F. Baker, of Newark.

Dr. Baker read his paper.

President McBride: Discussion of Dr. Baker's very excellent paper, with lantern

slide demonstrations, will be in order after the other papers have been presented.

The second number on the program this morning is—"What Is Wrong with the Fracture Situation"—by Dr. J. K. Adams, of East Orange, N. J.

Dr. Adams read his paper.

President McBride: The next number on the program this morning is the "Relation Between Traumatic Surgery and Industry" by Dr. J. W. Martin, of Baltimore.

Dr. Martin read his paper and exhibited a series of lantern slides.

President McBride: These very excellent papers are now open for discussion. We will first take up the discussion on Dr. Baker's paper "Duodenal Stasis". Does anyone here wish to discuss this paper? If not, I will ask Dr. Toye to discuss Dr. Adams' paper.

General discussion followed by Drs. Toye, Weigel, John Hagerty, Pinneo, Arlitz, Morrison, Avidan, Kessler, Adams and Martin.

At 12 a. m. President McBride delivered the Annual Presidential Address.

Meeting adjourned at 1:15 p. m.

Friday Afternoon Session, June 13, 1930

The meeting convened at 2:15 p. m., with President Andrew F. McBride in the chair.

President McBride: We have a very interesting program this afternoon, and I am sure that you will all enjoy it. The Committee on Program and Arrangements has provided a very splendid program, and we are going to have a number of gentlemen speak to us on things that are of vital importance to the profession in its relation to state institutions. A master on that topic is the first speaker on the program this afternoon.

Before going on, however, we will receive and act upon the report of the Nominating Committee.

Dr. Ephraim R. Mulford (Burlington): Mr. President and Gentlemen: The Nominating Committee beg to submit the following names for your consideration:

President: George N. J. Sommer, of Trenton
First Vice-President: John F. Hagerty, of Essex

Second Vice-President: Paul M. Mecray, of Camden

And it gives us unusual pleasure to present for Third Vice-President the name of Fred-eric J. Quigley, of Hudson County.

For Secretary, we present the name of Dr. J. Bennett Morrison, of Essex.

For Treasurer, Dr. Elias J. Marsh, of Passaic.

Under the new Constitution and By-Laws

we encountered no little difficulty in getting these Trustees selected; however, we would present the names of

James Hunter, Jr., of Gloucester, for 3 years
 James S. Green, of Union, for 2 years
 Wells P. Eagleton, of Essex, for 1 year
 Louis C. Osmun, of Warren, for 3 years
 F. G. McCormack, of Bergen, for 2 years
 A. F. McBride, of Passaic, for 1 year
 Martin W. Reddan, of Mercer, for 3 years
 Martin S. Meinzer, of Middlesex, for 2 years
 Harold B. Disbrow, of Ocean, for 1 year
 Wm. G. Herrman, of Monmouth, for 3 years
 Richard M. A. Davis, of Salem, for 2 years

The Councilors:

First District—Christopher C. Beling, re-elected, for 3 years.
 Second District—Spencer T. Snedecor, of Bergen, for 2 years.
 Third District—Wm. G. Schauffler, of Mercer, for 1 year.
 Fourth District—Marcus W. Newcomb, of Burlington, for 3 years.
 Fifth District—Aldrich Crowe, of Cape May, for 2 years.

Finance Committee: Alfred Stahl, of Essex; Wm. J. Sweeney, of Hudson; Harry R. North, of Mercer.

Committee on Program and Arrangements: Martin W. Reddan, of Mercer; Wm. G. Schauffler, of Mercer; William D. Olmstead, of Atlantic.

Committee on Publication: Edward J. Ill, of Essex; Henry C. Barkhorn, of Essex; Harold A. Tarbell, of Essex.

Delegates to the American Medical Association: Walt P. Conaway, of Atlantic; John F. Hagerty, of Essex; B. S. Pollak, of Hudson; E. R. Mulford, of Burlington.

Alternate Delegates: George H. Sexsmith, of Hudson; Philip Marvel, of Atlantic; Samuel B. English, of Hunterdon; C. B. Smith, of Warren.

The Nominating Committee voted unanimously to recommend to the House of Delegates that the next meeting be held at Asbury Park.

Gentlemen, with your indulgence I would like to mention that in accordance with the Constitution and By-Laws a member to serve on one of these committees has to be a member of the House of Delegates. On the Publication Committee you will note that Drs. Ill, Barkhorn and Tarbell were nominated. We find that Dr. Tarbell is not a delegate; therefore, he is not eligible for nomination or election. That vacancy will have to be filled; now when is the proper time to do that?

Dr. George N. J. Sommer: From the floor.

Dr. Alfred Stahl (Essex): You will note that in your By-Laws there is a ruling that it

is not possible for any member to hold 2 offices. For instance, a man could not hold 2 elective offices. However, according to Dr. Quigley, the Chairman of that Committee, the Board of Trustees was rendered a decision by Mr. Colie, for which we paid, in which he ruled that according to our Constitution, By-Laws and Charter a member could be elected an officer and also serve on one of the committees. You will note that Dr. Reddan is one of the members of the Board of Trustees, and is also continued on the committee which he has served so faithfully and efficiently, the Program Committee. I don't see how we could very well run it without him. According to the interpretation that has been given us by our Judicial Council that is possible. Now when the proper time to elect for this vacancy comes—if it is now and if it is in order—I would like to substitute for the name of Dr. Tarbell the name of Dr. Linn Emerson, of Essex.

President McBride: I think we will have to come to that order on the program before you can make that nomination.

You have heard the report of the Nominating Committee, Gentlemen, what is your pleasure?

Dr. J. Bennett Morrison: Your idea is to elect the whole ticket. Before we come to that I would like to say that the adoption of the present Constitution and By-Laws did not, in my opinion, wipe out all the standing committees. There is no such provision in the newly adopted laws, and when we consider the nominations handed in by the Nominating Committee for the Finance Committee, a grave injustice has been done to Dr. Miller, who is a hold-over. Two new delegates have been elected. Now, the by-laws provide that the Committee on Finance shall consist of 3 members elected by and from the Board of Trustees, and 3 members elected by and from the House of Delegates, and their term of office shall be for 6 years, provided that the term of 1 Trustee member shall expire every second year, and the term of 1 Delegate member on each alternate year. Therefore, the House of Delegates is entitled to 1 delegate to the Finance Committee. In my opinion an injustice has been done to Dr. Miller; they simply dropped him.

Dr. Fred J. Quigley (Hudson): I think that the interpretation of that is erroneous for this reason, that this new Constitution and By-Laws wipes out the old one by reason of this section, Chapter XV. The end of that Chapter reads: "Upon the adoption of this Constitution and these By-Laws all previous Constitutions and By-Laws are thereby repealed", which means of course that all com-

mittees and everything are repealed, and we have to elect entirely new committees; and in furtherance of my argument, I might say that there has been an entire re-arrangement of committees, some have been abolished, and the duties some formerly had to take care of have been transferred to the committees which we have created. Therefore, according to Chapter XV, which distinctly states that all previous laws are thereby repealed, I fail to see where any committees or officers are now in effect.

Dr. J. Bennett Morrison: May I ask the Committee on the Revision of the Constitution and By-Laws if the Nominating Committee elected entirely new members to every elected committee. If they did not, then the ruling on one committee is not in order.

Dr. Fred J. Quigley (Hudson): I have not been on the Nominating Committee.

Dr. E. R. Mulford (Burlington): Every one of those names was taken up and voted on, every one of those committees being included, by a roll call vote as the Constitution demands.

Dr. J. Bennett Morrison: Every name on every elected committee?

Dr. E. R. Mulford (Burlington): Yes, every name on every one of those committees was balloted on by a roll call vote. In some of those committees that were continued intact the names were balloted on at one time.

Dr. J. Bennett Morrison: That is all right.

Dr. E. R. Mulford (Burlington): Every committee was balloted on.

Dr. J. Bennett Morrison: The report did not so state, and so of course I did not know.

Dr. Alfred Stahl (Essex): Would it make it possible for you to elect the whole ticket, if I now withdraw the name of Dr. Tarbell and substitute the name of Dr. Linn Emerson, of Essex?

Dr. Fred J. Quigley (Hudson): I second the nomination.

President McBride: We will now vote on the motion for the withdrawal of the name of Dr. Tarbell from the list of names presented by the Nominating Committee and substitute therefor the name of Dr. Linn Emerson.

The motion was passed unanimously.

A motion was duly made and seconded, and unanimously adopted, that the ticket be elected as presented by the Nominating Committee.

President McBride: The Secretary will cast his ballot to such effect.

Dr. J. Bennett Morrison: The ballot is already cast.

President McBride: I hereby declare the gentlemen whose names were presented by

the Chairman of the Nominating Committee elected to the several positions as they were read. This concludes the election of officers. Now we will go on to the program.

Dr. J. Bennett Morrison: I would like to say a word. Under the old Constitution and By-Laws and under the newly adopted Constitution and By-Laws the members of the Nominating Committee are elected one from and by each county society. Each member is given by the county society credentials, signed by the secretary and president of the society to turn in here as the authority from that county to represent that county. This year there were 4 such credentials turned in, and it was only through the good grace of your Secretary that all the other men on the Nominating Committee were permitted to serve.

I want to state also that the Constitution provides that every member on an elected committee must be an elected delegate, and one of the names turned in, and a man who served on a committee was not an elected delegate. Now bear that in mind when you go home to prepare for next year.

President McBride: It gives me great pleasure to present at this time Mr. William J. Ellis, Commissioner of the Department of Institutions and Agencies.

Mr. Ellis read his paper on the "Development of Public Welfare Work".

President McBride: We appreciate very much this very splendid and instructive paper by the Commissioner of Department of Institutions and Agencies of the State of New Jersey, Mr. Ellis, and it will be open for discussion or questioning later on.

The next item on the program is "Influence of Public Health Activities on Medical Practice", by Dr. Julius Levy, Director of the Children's Bureau of the State Department of Health.

Dr. Levy read his address.

President McBride: Dr. Levy's very excellent paper will be open for discussion later on.

We now take up the third item on the program, "The State Department of Labor in Relation to the Public and the Medical Profession", by Dr. Henry H. Kessler, of Newark.

Dr. Kessler read a very instructive paper.

President McBride: The next paper will be "Health Department Growth in New Jersey", by Mr. D. C. Bowen, Director of the State Department of Health.

Mr. Bowen read his prepared paper.

President McBride: The next article on the program is by Mr. Robert Peacock, Assistant Attorney-General of New Jersey, entitled "The Doctor and the Law".

Dr. Peacock read his prepared paper.

Discussion followed by Drs. Pinneo, Morrison, Kelley, Reik, Darlington, Quigley, Sommer and John Hagerty.

President McBride: Any further discussion? If not, I again in the name of the society wish to express our sincere appreciation to all of the gentlemen who have appeared on the program this afternoon, and to all of those who have entered into the general discussions.

This practically concludes the Convention, except for a session tomorrow of the House of Delegates.

Dr. W. P. Conaway (Atlantic): May I ask that you call on Mr. Peacock.

President McBride: Before doing that, Dr. Morrison has something to say.

Dr. J. Bennett Morrison: Mr. Chairman, I would like to move that the Medical Society of New Jersey instruct its Welfare Committee to take up next winter consideration of the employment of unlicensed physicians in state, county and other municipal institutions, with the intent and purpose of having legislation passed putting an end to the practice.

Dr. Fred J. Quigley (Hudson): I second that.

A motion, duly made and seconded, was adopted that at a meeting of the newly appointed Welfare Committee the abolishment

of the employment of unlicensed physicians in state, county and other municipal institutions, be considered.

Dr. M. W. Newcomb (Burlington): If we are going to have that bill introduced in the legislature next year, we members in the legislature will expect a lot of work to be done by the medical men of the state of New Jersey in support of it.

President McBride: I am going to ask Mr. Peacock, Mr. Ellis, and the other gentlemen to close the discussion now.

Mr. William J. Ellis: I have nothing to add.

Mr. Robert Peacock: In reply to the doctor's question as to whether or not you can get an injunction against people employing improper practices, that is impossible under the present Act. That is why I advocated the jail sentence of not less than a year. I think that will be a proposition of eliminating the violators of this Act.

Mr. D. C. Bowen: I believe there is nothing further to say as my paper was not referred to in discussion.

President McBride: I am grateful to you for the papers.

Dr. Henry H. Kessler: There is nothing to add.

President McBride: I now declare this session closed.

The meeting adjourned at 5:15 p. m.

SECTION ON OPHTHALMOLOGY, OTOTOLOGY AND RHINOLARYNGOLOGY

Thursday Morning, June 12, 1930

The meeting convened at 10:30 a. m., Dr. Linn Emerson, of Orange, presiding.

Chairman Emerson: Gentlemen, we are about to open our meeting. This is the third year that we have had a section of Ophthalmology, Otology and Rhinolaryngology, and it seems to be the consensus of opinion that the interest in this work and the attendance at our meetings have justified a continuance of this plan.

I note with pleasure that we have with us Dr. J. N. Reik, of Baltimore, brother of our able Editor, who is also a specialist in our work, and it affords me great pleasure to invite him to sit with us and to participate in our discussions.

The only paper that we have on our program for this morning is one upon "Industrial Eye Injuries", by Dr. E. S. Sherman, of Newark. I have purposely given this whole session to this work because I feel that practically every member of the section will have

something to say regarding his attitude to this sort of work. Dr. Sherman, as we all know, does a great deal of industrial eye work, and I am sure we will listen to him with a great deal of interest.

Dr. Elbert S. Sherman then presented his prepared paper — "Some Problems in the Care of Industrial Eye Injuries".

Chairman Emerson: The discussion of this paper will be opened by Dr. Charles H. Schlichter, of Elizabeth.

Discussion followed by Drs. Schlichter, McBride, Meredith (of the New Jersey Manufacturers Casualty Insurance Company), Marsh, Blumberg, Adams, Seely, Emerson and Sherman.

Thursday Afternoon, June 12, 1930

The meeting convened at 2:30 p. m., Dr. Linn Emerson, of Orange, presiding.

Chairman Emerson: Gentlemen, we have quite a long program, so I think we had better come to order. We have 4 papers on the

subject of "glaucoma", and since they are all in some measure related, I think it will be conducive to lucidity and speed if we wait and have our discussion at the end of these papers. If there is no objection I will wait to call for any discussion until all 4 of the papers have been presented.

The first is "Etiology of Glaucoma, with Reference to Colloidal Chemistry", a Preliminary Report by Dr. H. L. Harley, of Atlantic City.

Dr. H. L. Harley read his prepared paper.

Chairman Emerson: The next paper in this symposium will be by Dr. W. D. Olmstead, of Atlantic City, on "Diagnosis of Glaucoma".

Dr. W. D. Olmstead read his prepared paper.

Chairman Emerson: The next paper is on "Nonsurgical Treatment of Glaucoma", by Dr. J. H. Chatten, of Newark.

Dr. J. H. Chatten read his prepared paper.

Chairman Emerson: Next are the "Indications for Different Operations in Glaucoma", by Dr. Edgar S. Thomson, of New York.

Dr. Thomson read his paper.

Chairman Emerson: Gentlemen, this series of interesting papers is now open for general discussion. It would seem that these 4 papers have covered the subject so thoroughly and so fully that anyone should feel he is competent to talk on the subject.

Discussion followed by Drs. Littwin, Sherman, Eagleton, Thomson, and Harley.

Meeting adjourned at 4:30 p. m.

Friday Morning, June 13, 1930

The meeting convened at 10:30 a. m., Dr. Linn Emerson, of Orange, presiding.

Chairman Emerson: Our first paper this morning is "Some Oddities in Mastoid Disease", by Dr. Walter L. Pannell, of East Orange.

Dr. Walter L. Pannell then presented his prepared paper.

Chairman Emerson: The discussion of Dr. Pannell's paper will be opened by Dr. Barkhorn.

Discussion followed by Drs. Barkhorn, Fowler, and Emerson.

Chairman Emerson: I will now call for the next paper, "Advantages of Local Anesthesia in Tonsillectomy; Novocain Technic Based on Anatomic Studies", by Dr. Robert H. Fowler, of New York.

Dr. Fowler presented his prepared paper.

Chairman Emerson: Before asking for any questions or discussions of this splendid paper of Dr. Fowler's, I am going to ask for the other paper. Despite the clear indications and beautiful technic shown by Dr. Fowler, there are a number of men who are very emphatic in their assertions that they would rather take a general anesthetic. There are some patients who absolutely refuse to submit to a local anesthetic. Therefore, I will ask Dr. William Campbell, of East Orange, to read a paper on "Advantages of General Anesthesia in Tonsillectomy".

Dr. Campbell read his paper.

Discussion was opened by Dr. Corwin, and followed up by Drs. Hubbard Yazujian and Fowler.

Chairman Emerson: Our meeting will stand adjourned, and we will go and listen to the Address of our honored President, Dr. McBride.

The meeting adjourned at 12:22 p. m.

Friday Afternoon, June 13, 1930

The meeting reconvened at 3 p. m., Dr. Linn Emerson presiding.

Chairman Emerson: Our first paper for this session is "Hereditary Familial Epistaxis with or without Hemorrhagic Telangiectasia", by Dr. Hyman I. Goldstein, of Camden.

Dr. Goldstein read his paper.

Discussion was participated in by Drs. Barkhorn and Ersner.

Chairman Emerson: The next paper, and concluding one of this meeting, is on "Voice Production", by Dr. Robert F. Ridpath, of Philadelphia.

Dr. Ridpath gave a very interesting talk illustrated by numerous slides and moving pictures.

Meeting adjourned at 4:30 p. m., after having elected Dr. E. S. Sherman, of Newark, Chairman for the coming year, and Dr. Norman W. Burritt, of Summit, Secretary.

SECTION ON PEDIATRICS

Thursday, June 12, 1930, at 10:30 A. M.

The Section on Pediatrics was called to order in the Mandarin Room of Haddon Hall, at 10:30 a. m., by the Chairman, Dr. Ernest G. Hummel, of Camden.

A paper entitled "Bacillus Abortus Infection", by Drs. C. A. Pons, W. W. Gosling and H. Baker, Long Branch, was read by Dr. Baker.

A paper on "Septic Abortion, Undulant Fever and Raw Milk" was read by Dr. Elmer G. Wherry, of Newark.

These 2 papers were discussed by Drs. Chester T. Brown, Arlington; Stanley Nichols, Long Branch; Robert A. Kilduffe, Atlantic City; F. W. Pinneo, Newark; Mr. Cook, of the Walker-Gordon Laboratories; and Dr. L. B. McBrayer, Southern Pines, N. C.; and, in closing, by Drs. Pons and Wherry.

A paper entitled "The Serology of Congenital Syphilis" was read by Dr. Robert A. Kilduffe, Atlantic City, and discussed by Drs. C. A. Pons, Long Branch; F. C. Johnson, New Brunswick; A. J. Casselman, Camden; and, in closing, by the essayist.

Paper entitled "Nutritional Edema Associated with Severe Anemia", read by Dr. Joseph H. Marcus, Atlantic City, was discussed by Dr. Charles Rosenberg, Newark.

The Section adjourned at 1:45 p. m.

Thursday Afternoon, June 12, 1930

Dr. Charles Rosenberg, Newark, presented a paper entitled "Malnutrition in Children", which was discussed by Drs. Arthur Heyman, Newark; F. I. Krauss, Chatham, and, in closing, by the essayist.

Dr. Percival Nicholson, Philadelphia, presented a paper entitled "Essentials of Successful Infant Feeding," which was discussed by Drs. F. I. Krauss, Chatham; Charles Rosenberg, Newark, and the essayist.

Dr. F. I. Krauss, Chatham, read a paper entitled "Diet in the Eczema of Infancy", which was discussed by Drs. Arthur Stern, Elizabeth; and F. C. Johnson, New Brunswick.

It was then decided to have the next paper, on a similar subject, read before discussion was continued.

Dr. Francis J. McCauley, Newark, read a paper entitled "Eczema in Infancy from the Dermatologist's Standpoint", which was discussed by Drs. H. J. F. Wallhauser, Newark; Elmer G. Wherry, Newark; Percival Nicholson, Philadelphia; and, in closing, by Drs.

Krauss and McCauley. Discussion was continued by Dr. H. J. F. Wallhauser, Newark.

The Section adjourned at 5:30 p. m.

Friday Morning, June 13, 1930

The Section was called to order at 10:15 a. m. by the Chairman, Dr. Hummel.

Dr. A. S. Finkelstein, Newark, read a paper entitled "Treatment of Whooping Cough with Ether Injections", which was discussed by Drs. Arthur Stern, Elizabeth; Julius Levy, Newark; F. I. Krauss, Chatham; and in closing by the essayist.

A paper entitled "Functional and Non-pathologic Heart Murmurs in Children" was read by Dr. Irving Okin, Passaic, which was discussed by Drs. Stanley Nichols, Long Branch; D. J. M. Miller, Atlantic City; F. C. Johnson, New Brunswick; and in closing by the essayist.

Dr. Ira S. Wile, New York City, presented a paper entitled "The Integration of the Child", which was discussed by Drs. Julius Levy, Newark; Stanley Nichols, Long Branch; Samuel Stalberg, Atlantic City; F. I. Krauss, Chatham; and the essayist.

The meeting adjourned at 12:15 p. m.

Friday Afternoon, June 13, 1930

The meeting was called to order at 2:45 p. m.

Dr. Stanley Nichols, Asbury Park, read a paper on "Rheumatic Fever in Children", which was discussed by Drs. Irving Okin, Passaic; and Stanley Nichols.

Dr. Charles Gilmore Kerley, New York City, read a paper entitled "Gastro-Intestinal Function in Relation to Gastro-Intestinal Mechanics", which was discussed by Drs. Percival Nicholson, Philadelphia; F. I. Krauss, Chatham; and, in closing, by the essayist.

Dr. J. P. Caffey, New York City, showed some slides and gave a talk on "The Healing in Human Rickets during Viosterol Therapy". This was discussed by Drs. Stafford McLean, New York City; and Blanchard.

Dr. Elmer G. Wherry, of Newark, was nominated for Chairman of the Section on Pediatrics for the coming year and was elected.

Dr. Nichols repeated his motion, previously made, that the Chairman appoint a committee to study undulant fever and make a definite report with recommendations as to what should be done on the milk question in this

state, with power to add to the committee if found necessary.

This motion was duly seconded and approved.

Dr. Johnson (New Brunswick): I should like to ask if this committee can go beyond this question of undulant fever? It seems to me that in the past we have neglected the opportunity to educate our own members, some of whom need coaching as much as the public in the matter of milk handling. I agree with Dr. Wherry that we should go on with the pasteurization of the raw milk and express the attitude of the pediatricians toward it, because there are very definite ideas which are sufficiently accepted for us to go on record at the present time on the question of the safety of milk in infant feeding.

Dr. Hummel (Chairman): We would be very glad to have the committee take care of the whole subject. I think it would handle that anyhow.

Committee appointed by the Chair: Drs. Wherry, Chairman; Nichols, Kilduffe and Pons.

Report of Committee on Mental Hygiene

By Dr. Elmer Chase Jackson, East Orange

(Report read by Dr. Julius Levy, Newark)

Mr. Chairman and Fellow Section Members:

As a result of a general discussion of mental hygiene needs, this section at the 1929 meeting, on motion, appointed a special committee to examine into and report on this problem at the 1930 session. The committee appointed by your Chairman consists of Drs. Henry Spence, C. C. Beling, Julius Levy, and E. C. Jackson, Chairman.

This committee was asked, as stated above, to examine into and report on the needs for participation of the Pediatric Section in a definite mental hygiene program. The opinion expressed in the discussion last year, in regard to what we should do along mental hygiene lines, was, that we, as doctors particularly interested in the age group in which the beginning of mental abnormalities is first seen, have a definite responsibility both in equipping ourselves for recognition of these conditions and aiding in every way possible a betterment of the situation in general.

Your committee has fully appreciated the tremendous task, with its many ramifications, that has been assigned to it. Our feeling, therefore, has been that we had best proceed very slowly and that we had best confine our efforts for the first years of work to a fairly definite program along preventive lines.

The organization meeting of the committee was held shortly after the 1929 annual meeting, and the problem assigned by you to us was considered from all its possible angles. Feeling that we should have as much expert advice as we could secure, Dr. James Plant, Director of the Essex County Juvenile Clinic, and Dr. Bruce B. Robinson, Director of the Child Guidance Clinic of the

Newark Public Schools, were added to membership of this committee.

During the summer months the individual members of the committee were asked to study the needs and possibilities of solution of this whole subject, with the idea of bringing to the first meeting in the fall their ideas as to what our problem was, how far it could be met at present, and what measures might be actively set in motion by this committee's efforts, both by coöperation of those agencies already at work, and such other agencies as we believed should be interested. Conferences were held during this time with the officers of the National Committee on Mental Hygiene in order to orient ourselves and to gain their coöperation and advice as to future plans. Believing that we should immediately get in touch with all the agencies that are working on the same problem, we sought and obtained the enthusiastic backing of the State Department of Institutions and Agencies, through Commissioner Ellis, and the State Department of Education, through Dr. Ireland.

On October 31, 1929, the second meeting of the committee was held. Reports on the summer conferences and activities were discussed. Letters from Commissioner Ellis, Dr. Pratt of the National Association, from the Department of Education and from the Parent-Teachers' Association, all expressing their interest and coöperation, were read. As the result of a general discussion of the whole subject, the committee decided unanimously to begin work on an educational program of prevention, with the feeling that this program should cover a period of years. The basic principles of such a program are contained, we believe, in the following 3 paragraphs:

(1) Any preventive program must be focused on problems of children.

(2) This, of course, involves working with the problems of those who control in so many ways the life and development of children: parents, teachers.

(3) Kinds of Children:

A. Dependent (Social agencies, institutions, foster homes)—Mental health study needed.

B. Retarded Children: Adequate diagnostic facilities in schools and, more important, adequate facilities for proper education.

C. Children with all degrees of behavior problems. Involving home, school and community.

Also, so-called "normal" children should receive some attention, as they have their adjustments to make.

In organization of mental hygiene work in any community, there are 4 fundamentals to bear in mind: that

(1) Mental hygiene is not the job of any one group.

(2) Need for trained workers.

(3) Need for fighting community inertia.

(4) Need for more knowledge.

The committee decided that as soon as feasible, the following specific objects should be attempted:

(1) Seminars on mental hygiene within the medical society.

(2) Articles on basic principles of mental hygiene to appear in the Journal.

(3) Speakers at the annual meeting of the

state society and speakers at the county society meetings.

(4) To attempt to give to the future teachers in the Normal Schools, a course of 3-6 lectures, on what constitute the beginning signs of abnormal mental conditions.

(5) Also, to attempt to give the present teachers something along this same line and to work through the Mental Hygiene Committee of the State Teachers Association in this attempt.

(6) To inaugurate, as far as possible, through speakers, pamphlets, etc., an educational program to social workers, lawyers and clergymen.

(7) To inaugurate, as far as possible, this same educational program for the parents of the state—probably best through the Parent-Teachers Association.

Dr. Ireland, of the State Department of Education, indicated that in cooperation with our committee, he expected to bring a full-time teacher on mental hygiene to his department; that he expected to distribute pamphlets to the superintendents and principals. He has specifically asked this committee's help in preparing a definite program of mental hygiene for his department to be used throughout the state in school work. He also indicated that he would start the teacher training in the Newark State Normal School. Dr. Robinson, of our committee, gave this course, in 1929, and it will be continued.

Mrs. Little, President of the Parent-Teachers organization, consisting of 750 groups in New Jersey, and which meets in sectional organizations, asked that we furnish speakers for their county meetings and at their spring conferences. Your committee met this request and furnished the speakers.

On November 26, 1929, part of the committee was asked to join with the Committee on Mental Hygiene of the New Jersey State Board of Control of Institutions and Agencies, and your Chairman, with Dr. Spence and Dr. Reik of the State Society, attended a meeting at Trenton. At this time, the program which has been previously outlined, was discussed with the State Board of Control Committee and its heartiest cooperation was given us.

As the committee went along in its work, we began to feel that one of the most concrete things that this group might do was to begin to get together by every possible effort, all the groups in the state working along mental hygiene lines. We had already been assured of cooperation, but we felt that by actually getting representatives from all of the groups together in a meeting, we could accomplish more. This was done, therefore, at a luncheon meeting held at the Downtown Club, in Newark, on December 3, 1929. In addition to our own committee, the following were present:

Mrs. Wm. F. Little, President, N. J. Parent-Teachers Association; Dr. Emil Frankel, Director, Research Department of Institutions and Agencies; Dr. Guy Payne, Superintendent, Overbrook; Dr. Marcus A. Curry, Superintendent, Greystone Park; Dr. Ambrose F. Dowd, Mental Hygiene Committee, State Department of Institutions and Agencies; Miss Elizabeth Dexter, State Teachers Association; Dr. Reik, Journal Editor; Mr. Spargo, Assistant Commissioner of Education, and Dr. Ireland. (Mr. Spargo and Dr. Ireland attended in Dr. Elliott's absence.)

The following were invited but were unable to attend:

Commissioner Wm. J. Ellis, State Department

of Institutions and Agencies; Dr. G. K. Dickinson; Dr. J. Bennett Morrison, Secretary of State Medical Society; Dr. Henry A. Cotton, Superintendent, Trenton State Hospital; Dr. Charles H. Elliott, Commissioner of Education of New Jersey.

At this meeting, after considerable discussion, a motion was made to form a small coordinating committee of representatives of all the mental hygiene activities in New Jersey. This committee was to meet regularly and be composed of the Chairmen from the 4 most active groups, namely, the State Department of Education, State Department of Institutions and Agencies, State Medical Society, and the Parent-Teachers Association. This committee was appointed and is composed of Dr. A. F. Dowd, State Department of Institutions and Agencies; Dr. Ireland, State Department of Education; Mrs. Wm. F. Little, State Department Teachers Association, and Dr. Jackson, State Medical Society, the fourth member and Chairman.

The foregoing represents the purposes and activities of the committee to date. We have had no elated feeling of great accomplishment but we do feel that we have taken a few steps on the rough tortuous road toward the goal of better mental welfare in this state. The committee has itself been impressed, and wishes to impress the members of the society, with the fact that any program leading to a solution of this problem is a long tedious, year by year, affair.

In conclusion, your committee wishes to make the following recommendations to the society:

(1) That the educational program as set forth be continued. And that to this educational program be added an attempt this coming year to teach the fundamentals of mental hygiene to the nurses of the State Bureau of Child Hygiene. (A tentative plan for this has been adopted by this committee.)

(2) We recommend that this committee be discontinued and that a special permanent committee, probably reporting to the House of Delegates, be set up, with sufficient secretarial help and assistance to enable it to carry out the future program.

(3) We recommend seeking further cooperation of all the existing groups, working in the mental welfare field.

Henry Spence
C. C. Beling
Julius Levy
Bruce B. Robinson
James S. Plant
E. C. Jackson, Chairman

Dr. Levy made a motion that the Section on Pediatrics discontinue this Committee on Mental Hygiene and recommend to the House of Delegates that a Committee on Mental Hygiene be appointed which will be a Committee of the Society rather than of this Section and suggested that as Dr. Jackson has done a very fine piece of work and is very well informed on this subject, that his services be used on this committee.

This motion was duly seconded and approved.

Meeting adjourned at 5 p. m.

SPECIAL MEETING OF SCHOOL PHYSICIANS

Wednesday, June 11, 1930, at 2:30 P. M.

The meeting was called to order in the Tower Room of Haddon Hall, at 2:30 p. m., by the Chairman, Dr. Allen G. Ireland.

Paper entitled "Place of the Physician in School Health Program" was read by Dr. Allen G. Ireland, Director of Physical and Health Education, Department of Public Instruction.

Paper entitled "Contribution of Physical Education to School Health Program" was read by Dr. Frederick W. Maroney, Director Department of Health Education, Atlantic City Public Schools.

Paper entitled "The Physician and His Contribution to Education, from the Viewpoint of the School Administrator" was read by Mr. Frank G. Pickell, City Superintendent of Schools, Montclair.

Dr. Ireland: I am delighted that Mr. Pickell spoke of the family doctor. Those who have heard me speak on that subject have heard me stress the fact that the school

does not want to assume any responsibility for treatment of pupils. It is our job to find out what is wrong with them, if anything, so that we may recommend correction and sending them out into life physically and mentally prepared to live. It has been recommended that the schools use a form which in effect would be a notice from the school physician to the family, just as Dr. Pickell spoke of. That, and removing the clothing for examination in the presence of teacher and parent, are two of the most important changes we are urging in the school health work for the future.

A paper entitled "Development in School Health Program as Seen by the School Nurse" was read by Miss Evelyn T. Walter, Director of Public Health Department, Monmouth County Organization for Social Service.

A paper entitled "School Health Work from Physician's Point of View" was read by Dr. Stanley H. Nichols, Asbury Park.

Adjournment at 4 p. m.

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

Thursday, June 12, 1930

The Fourth Annual Convention of the Woman's Auxiliary to the Medical Society of New Jersey assembled in the Derbyshire Room, Haddon Hall, Atlantic City, Thursday morning, June 12, 1930, at 9.30 a. m.

Mrs. James Hunter greeted the delegates, members and guests. The meeting was formally opened with prayer.

Mrs. Edward Clarke was appointed by the chair as Convention Parliamentarian.

The first item of business was the report of the Secretary, Mrs. A. J. Casselman, which was accepted and filed following a vote of thanks.

Mrs. H. Roy Van Ness, Treasurer, read her report and showed that \$163.30 was the balance for the year. She amplified her report by presenting to the delegates the new method to be used for the coming year. This plan was formulated by the National Auxiliary and should standardize and minimize the work of collecting and disbursing funds. The necessary literature and stationery have been supplied by the parent society, our auxiliary presenting during the year \$10 toward defraying the necessary expense.

Mrs. Van Ness' most capable report was accepted and ordered filed.

The chair appointed the following Nomin-

ating Committee: Mrs. George L. Orton (Union), Chairman; Mrs. John Nevin (Hudson); Mrs. Joseph McGuire (Mercer); Mrs. Ephraim R. Mulford (Burlington); Mrs. Theodore Teimer (Essex).

The Committee Reports being the next item of business, Mrs. H. H. V. Hubbard moved that in order to expedite the work and save time, all reports be read, and upon the completion accented in bulk. This motion was carried and so ordered.

Mrs. W. Blair Stewart, Chairman of the Publicity Committee, presented the following report:

Publicity Committee Report for 1929-1930

Our state group may be 100% in county organization of auxiliaries but it is certainly not 100% in making reports to the Publicity Committee Chairman. Those deserving special mention are Gloucester and Essex County Auxiliaries, whose reports were duly noted and sent to the Editor of the Journal for publication. Mrs. E. C. Taneyhill, Field Secretary to the Medical Society of New Jersey, has responded to numerous calls from the auxiliaries. Mrs. A. Haines Lippincott, of the Advisory Committee of the State Auxiliary, has spoken upon the subject of medical legislation. Other popular guest speakers were: State President, Mrs. James Hunter, Jr.; Mrs. W. Wayne Babcock, of Philadelphia, one of the Directors of the National Auxiliary; Mrs. W. J. Freeman, daughter of Dr. Keen, the famous surgeon; and Dr. Frank C. Hammond, of Philadel-

phia, Editor of the Pennsylvania State Medical Journal.

Hospitals, schools, child welfare, welfare legislation, maternity centers, sanatoriums, visiting nurses' associations, asylums and tuberculosis homes have been materially assisted by the different county auxiliaries. In our welfare work, should we not include prison welfare, so much needed in many places? At the holiday season, much was done for the kiddies, in the way of Christmas cheer.

Hygeia has had a most thorough advertising: subscriptions have been sent to schools, libraries, Y. W. C. A.'s, and many other places; personal subscriptions have been constantly stressed.

One county auxiliary brings to meetings clippings from the Journal, which are read and discussed. This idea might be extended to embrace Hygeia or any magazine or newspaper.

Have we all membership committees? We have heard of but one county with a 100% membership and that is in a rural section.

One auxiliary is sponsoring a scholarship fund; many institutions have been visited; a motion picture machine was presented to one of the county societies; and one auxiliary reported a \$5 donation to be sent to the Annual Meeting Fund. This might be a thought for other auxiliaries.

"All work and no play makes Jack a dull boy"—so, there have been luncheons, teas and dinners, necessary funds have been raised by card parties, and the mothers of doctors have been entertained.

There may have been reports sent direct to the Editor of the Journal but your Publicity Chairman cannot include those in her report. It is most important that you send in reports of the splendid work which you are doing; they will be published with the auxiliary news of the state.

Let us have coöperation and promptness as our slogans!

Florence G. Stewart,
Chairman.

Mrs. Russell A. Shirrefs, Chairman of the Public Health Committee, reported that sample copies of Hygeia were distributed, whenever possible, and the lectures of Mrs. E. C. Taneyhill were advertised. Letters from various sources were answered concerning the work. Correspondence was carried on with the National Chairman of Public Welfare and with the Circulation Manager of Hygeia. Information was furnished and mailing lists supplied. Some of the counties still lack Public Welfare Chairmen and in order that mailing lists for the National Chairman be complete, it is desirable that these be appointed.

Mrs. Edward W. Clarke, Chairman of the Program Committee, reported that the well planned printed program, showing clearly the activities of the convention, was the work of this committee. Mrs. Clarke brought to the attention of the delegates "Study Programs" as prepared and distributed by the National Auxiliary. "These are an honest effort on their part to establish well planned educational programs that may be of interest to any group of zealous workers no matter where located."

Mrs. William Freile, Chairman of the Entertainment Committee, gave a complete résumé of her committee's work during the preceding months. She made several trips to Atlantic City, conferring with Dr. Olmstead and the hotel executives. She urged all to attend the Dinner Dance on Friday, June 13. In the afternoon of the same day she had arranged to have Mrs. Russell Shirrefs give to the delegates and their guests her lecture on "Wild Flower Legends and Traditions". The usual card party was to be arranged for and conducted by the Atlantic County Auxiliary.

Mrs. Samuel Salasin, Chairman of the Committee on Credentials and Registration, reported that a special effort was made to take and file all records of attendance. The committee, consisting of members of the Atlantic County Auxiliary, met early. The tables were so arranged that the matter could be taken care of expeditiously. Well printed cards directed the attendants to the proper place. Both days the Derbyshire Room was well filled: delegates, 39; alternates, 18; guests, 11; members 22.

Upon acceptance of these reports, the business of the meeting was suspended in order that the convention might have the pleasure of hearing Dr. Edward Ill, distinguished Past President of the State Society, talk on a subject dear to his heart. As President of the Society for the Relief of Widows and Orphans of Medical Men of New Jersey, he is conversant with many sad cases existing in physicians' families. He made a most earnest plea that as an auxiliary we assist in this project by launching a membership campaign.

All were keenly interested and later voted to support an active interest in this much needed work.

As the guest speakers were not as yet present, the society voted that the President of the State Auxiliary, Mrs. James Hunter, Jr., give her report:

ADDRESS OF THE PRESIDENT

Mrs. James Hunter, Jr.
Westville, N. J.

Again June is with us, the month lauded by the poets—the time of glorious gardens, bewitching brides, sweet girl graduates and, may I add, a most fitting time for the Convention of the Woman's Auxiliary to the Medical Society of New Jersey.

It has been my privilege to serve for the past 12 months a group of loyal women, members of physicians' families, who upon the solicitation of the Medical Society of New Jersey have organized themselves into an auxiliary to the oldest state medical so-

ciety in America. We are indeed honored at the call and we are already conscious that the need is great. Much may be accomplished once we get the broad vision, accompanied with the necessary desire to work. We are not unmindful that many things have been left undone that should have been done during this year, but we, your corps of officers and your president, have been *one* in making an honest, sincere effort to serve.

It is altogether fitting that you, as an organization, should require of us a résumé of the work planned and accomplished. We selected the following slogan, as an impetus—"The Will to Work is the Way to Win".

At the meeting in June, 1929, the Board of Trustees of the State Society appointed the following Advisory Committee: Drs. Walt Conway, Atlantic City; Lucius F. Donohoe, Bayonne; Linn Emerson, Orange; Paul McCray, Camden; Louis Osmun, Hackettstown.

Only once did we avail ourselves of this committee's aid, but it gave us a feeling of security that should the occasion warrant we had at hand the services of a group of outstanding physicians, capable and willing to advise, as well as being men in hearty sympathy with the auxiliary and its aims.

Two of our officers found it necessary to resign. Mrs. Robert White, Sussex County, Second Vice-President, the mother of several young children, felt that her first call was home. However, her interest has never waned and her name shines in all the worth while things accomplished in her own county. Mrs. William Raughley, of Camden County, has served in her stead. In January, Mrs. Ephraim R. Mulford, of Burlington County, presented her resignation as a Director. She has continued her interest in her own county and her resignation was tabled for action at this meeting. We regret losing both of these capable women from the official list.

There have been 4 Executive Board meetings: one immediately at the adjournment of June 1929 meetings; another, purely executive in scope, was held October 6, 1929, in Trenton. Mrs. George N. J. Sommer made all the arrangements and planned a round-table luncheon every detail of which was perfect. At this meeting the policy and scope of the work of the society for the year were freely discussed and definitely outlined.

Again in January, another call. This time Newark was chosen, and Essex County members did themselves proud. Under the leadership of Mrs. Theodore Teimer, a luncheon and rare musical treat preceded our conference. This meeting was an open one and 96 availed themselves of attendance privileges. Mrs. J. Newton Hunsberger, President-Elect

of the National Auxiliary, was guest speaker. She was stimulating, encouraging, informative.

The fourth meeting was held June 11, 1930; at Haddon Hall.

The first 3 meetings formed the skeleton around which the activities of the year have been built.

Acting upon the suggestion of your former President, Mrs. George L. Orton, the counties were divided into the following groups and the 3 Vice-Presidents and the Directors placed in charge:

Somerset and Middlesex...Mrs. Dan Renner
Camden, Ocean, Cape May, Gloucester

SalemMrs. Wm. Raughley
Union, Monmouth...Mrs. H. H. V. Hubbard
Sussex, Warren.....Mrs. R. L. Ballinger
Bergen, Essex, Passaic.....Mrs. Theodore
Teimer and Mrs. Emanuel Newman
Hudson, Morris.....Mrs. George Culver
Atlantic, Cumberland, Burlington,

Mrs. Ephraim Mulford
Mercer, Hunterdon,

Mrs. George N. J. Sommer

The Board, in October, directed the President to issue an explanatory letter on "Why the Auxiliary". This was to reach the home of every physician in the state, to inform and invite membership. While this was in the course of preparation, Dr. Henry O. Reik advised us that the State Society was about to launch a similar movement. You have all received this little booklet "A Primer for the Woman's Auxiliary to the Medical Society of New Jersey". As you know, it is a delightful survey of the history and aims of the Auxiliary. We have used it in our work, and already we know it has been more than worth while. Outside this state many Auxiliaries are clamoring for copies and the President-Elect of the National Auxiliary, Mrs. Hunsberger, solicited copies for use in national organization work. She will display them at the A. M. A. meeting to be held later this month in Detroit.

Now, what part had we in this Primer? The entire expense was defrayed by the State Society; our part was simply to "carry the message to Garcia". Mrs. H. Roy Van Ness, who has the happy faculty of getting things done, sent us upon request 900 names and addresses. Then Mrs. Henry B. Diverty and Mrs. J. Harris Underwood, of Gloucester County, and Mrs. A. J. Casselman, of Camden, addressed 900 envelopes. These women did the work cheerfully and expeditiously, and as an organization we are grateful. The remaining 1600 booklets were forwarded in packages, accompanied by an

explanatory letter, to the presidents of the 21 county auxiliaries. Each package and letter contained the list of names of those to whom a booklet had been sent. Some counties quickly appreciated the opportunity and launched a membership drive.

We are indebted to the medical society for its generosity and interest, and we here publicly express our appreciation and our gratitude.

Now as to our efforts: With the thought that we must pull together, we must unify our endeavors, the President outlined a specific program—making 2 efforts obligatory—2 requests: (1) The auxiliary was obligated to procure audiences for Mrs. E. C. Taneyhill, Field Secretary of the State Medical Society. (2) In compliance with a request from the American Medical Association, all were urged to continue the securing of subscriptions for Hygeia; to place Hygeia; to see that it reaches every physician's home. (3) To continue the unification thought as well as to promote harmonious results, the President suggested that at one meeting a year the mothers of physicians should be guests of honor of the county units. Some groups have made gala occasions of these, and good fellowship reigns. (4) As a part of the educational program, the President was fortunate to arrange with Mr. William J. Ellis, Department of Institutions and Agencies, for the privilege of using facilities of the various institutions of the state for the purpose of study. This campaign should have a four-fold result—(a) The trip to and fro should be a factor in getting the participants better acquainted. (b) The visit, if planned properly, should be educational in scope—actual visualization stamping the lesson learned indelibly on the mind. (c) The physicians in charge and their families are encouraged and stimulated by the visit. (d) The participants can carry the message back home; to their clubs. Commissioner Ellis has most cordially assisted us and these so-called pilgrimages may be made of inestimable value. Dr. Henry O. Reik evinced his interest in this phase of his work and assisted materially in getting it across by allowing your President generous space in the Journal (April 1930). We here publicly express our gratitude to him.

The National Auxiliary has issued this year a number of "study envelopes" to be used in planning intelligent programs. These have been distributed by Mrs. Edward Clarke, your Chairman of Program, and while not of material use this year, they are awaiting our planning for next year's meetings.

Our work was, in no sense, limited to these

lines of activity as will be seen by the reports of the county auxiliary presidents. In some counties the enthusiasm has been very marked, the work planned unique—attracting much attention.

It is most unfortunate that several counties refuse to function, for obvious reasons: geography has been somewhat responsible; physician's families scattered; transportation difficult. Then, in other counties, the parent organization has not met the new one, its own offspring, in a kindly spirit—looking upon it derisively and in some cases, arrogantly. With such a background, one does not wonder at fine spirited women refusing to display any interest. However, this is a natural phase of all organization movements, and in comparison with other states the percentage of opposition is trivial. It is to be hoped that by June 1931, this difficulty will be removed and we will be working in unison, 21 counties strong.

During the fiscal year it has been your President's privilege to carry your greetings to the following: By telegram to National Auxiliary in session in Portland, Oregon, and to the Executive Board Meeting, National Auxiliary, in session, in Chicago. By telegram to Salem County Medical Society upon its Fiftieth Anniversary. In person to Cape May County Medical Society, Somerset County Medical Society, Montgomery County, Pa., Auxiliary, at an annual luncheon held in Norristown, Pa. In person to the Philadelphia County Auxiliary at its All-day Health Institute. In person to the Philadelphia County Auxiliary at an annual meeting and luncheon.

Your President has made 40 visitations in the name of the Auxiliary and 1500 pieces of mail have been sent out by her.

We have increased our paid-up membership 27%.

May your President, at this time, express her heartfelt appreciation of the universal spirit of coöperation, for evidences of loyalty, for the kindliness of purpose that has actuated your thought and which she has experienced during the weeks that have flown so pitilessly by. She feels that all the work has been worth-while, that many of you have already caught a glimpse of the beautiful vision of service, and that under skilful guidance the Woman's Auxiliary to the Medical Society of New Jersey will climb to heights yet undreamed of and be a potent force in the medical affairs of the state.

May you all live long and prosper.

Mrs. Theodore Teimer moved that the report be incorporated into the minutes and pub-

lished as a whole in the State Journal. This was carried and so ordered.

The President then called for the county reports to be presented by the presidents. In spite of the fact that a circular letter had requested all reports to be in duplicate form, some were given verbally and much that should be in permanent form has been lost.

The reports are as follows:

Atlantic, Mrs. J. T. Beckwith.—We have a membership of 72, 6 of these members having been taken into the auxiliary during the past year. The meetings have been fairly well attended and we have had the pleasure and inspiration of such speakers as: Dr. Henry O. Reik, Dr. Clara Bartlett, Mrs. James Hunter, Jr., and Mrs. W. Blair Stewart.

During the year our donations have been as follows: \$150 to the Atlantic County Tubercular Hospital; \$100 to the Nursery of the Atlantic City Hospital; \$10 to Santa Pals; \$10 for toys for children at Pine Rest Sanitarium and the Municipal Hospital; \$5 and 2 Sanitas table cloths for the Atlantic City Day Nursery.

On February 14, a musicale and tea was given in honor of our State President, Mrs. James Hunter, Jr. On May 9, we enjoyed a banquet given by the Atlantic County Medical Society in celebration of its fiftieth anniversary in which the Woman's Auxiliary was asked to assist. Later in May, our annual Spring Luncheon was held at the Country Club. On July 14, a public card party is to be given for charity.

Hygeia was reported to be in the schools and public places as well as in the doctors' offices.

Following Mrs. Hunter's advice, we have an Advisory Board consisting of Drs. Silvers, Marcus and Salasin.

It is with deep regret that I report the loss of a member through death, Mrs. George Spencer.

Our meetings are held the second Friday of each month with the exception of June, July and August, and we extend a cordial invitation to our State President and members to visit our auxiliary meetings.

Respectfully submitted,

Mae Beckwith,
President.

Burlington, Mrs. R. E. Haldeman.—The Woman's Auxiliary to the Burlington County Medical Society held its regular 4 meetings this year in October, January, March and May.

The October meeting was held in the Y. W. C. A. at Burlington at which time officers for the coming year were elected. Mrs. James Hunter, Jr., our State President, was our guest and speaker.

In December the doctors gave a dinner at the Community House in Moorestown, to which we were invited. They entertained us with a very delightful pageant in which they participated.

Our January meeting was held at the Burlington County Hospital in Mt. Holly. This was an all day meeting. We gathered in the morning to mend garments. Our business meeting was held after luncheon and we resumed our mending in the afternoon.

In January we held a very delightful luncheon at the Riverton Country Club. There were 75 members and guests present. Mrs. Walter Jackson Freeman, State President of the Pennsylvania Medical Auxiliary, was our guest speaker. Two

of our members also spoke. Mrs. Mulford gave a report on the National Convention and Mrs. Newcomb gave a very enlightening report upon medical legislation.

Our May meeting was held at the summer home of Mrs. Hollingshead at Medford Lakes. After a picnic luncheon we had our business meeting and then enjoyed bridge.

We have continued to sew for the Burlington County Hospital this year.

Money has been raised for the purpose of putting Hygeia in new places in our county.

Respectfully submitted,
Gertrude Haldeman,
President.

Camden, Mrs. A. J. Casselman.—The Woman's Auxiliary to the Camden County Medical Society has 4 meetings a year: the second Tuesday of the months of October, January, May and March. The October and March meetings are in the evenings and are business meetings. A speaker is usually secured for these evenings. The May and January meetings are social and are in the afternoons. Our dues are \$5, including Hygeia.

At our meeting in October, we were honored by the presence of our State President, Mrs. James Hunter, Jr. who gave us an address on auxiliary proceedings.

Our January meeting was the highlight of our year's work. We had sent out invitations to the mothers of our physicians, asking them to a tea. The weather was terrible; it rained and sleeted all day. Six mothers very valiantly arrived at our meeting place. Mrs. Hunter was with us and gave a short address to the mothers. Mrs. Hunsberger, President-Elect of the National Auxiliary, also was with us and addressed the mothers. Mrs. Louis R. Dick, of the New Century Club, Philadelphia, gave an interesting address using poems. Corsage bouquets were presented to the mothers, artists and guests. Tea was served. It was a very successful afternoon and we are planning on trying it next year in May as that is the month of mother's day.

The May meeting was a bridge luncheon given at Box Wood Lodge, Lumberton, followed by a business meeting. This was also a successful affair. This shows us that the women like social affairs in the auxiliary. At this meeting it was voted to have printed copies of the questionnaire sent out by our president and have a copy mailed to every member of our auxiliary. We also voted to have the Primer for the Woman's Auxiliary to the Medical Society of New Jersey sent to every physician's home in our county.

Our average attendance for the year has been 15; we have 41 members, a gain of 3 over last year. Twenty engagements were secured for Mrs. Taneyhill, 12 of which she filled.

Flowers are sent to our sick. Also to members of any physician's family in distress.

We have not been called upon by the county society to assist in any project.

Respectfully submitted,
Zula Casselman,
President.

Cape May, Mrs. Frank R. Hughes.—The Woman's Auxiliary to the Cape May County Medical Society hold 2 regular meetings during the year, at the same time and the same place as the county medical society.

Our first meeting was a special one held at the Douglass Hotel, Cape May Court House, on February 27, 1930, with an attendance of 8 members. We were honored by having our State President,

Mrs. James Hunter, Jr., as our guest. She was accompanied by Mrs. William Westcott and Mrs. Raughley, of Camden County.

Mrs. Hunter in her charming manner gave a most interesting and helpful talk concerning the activities of the Woman's Auxiliary to the Medical Society of New Jersey. She also told us about some workable plans for the ensuing year, and inspired us with a desire to be up and doing, though few in number. Mrs. Westcott and Mrs. Raughley contributed very instructive reports on what the auxiliary of which they were members were doing. After the meeting, we were guests of the county medical society at a luncheon.

A regular meeting was held at the home of the president on Wednesday, April 16, at 3 p. m. Plans were made to entertain the mothers of the members of the Cape May County Medical Society at a musicale-tea on Wednesday, May 14, 3 to 5 p. m. The following delegates were appointed to attend the convention at Atlantic City: Mrs. F. R. Hughes, Mrs. G. F. Dandois and H. H. Tomlin. Alternates: Mrs. A. C. Crowe, Mrs. H. Petit and Mrs. O. F. Ziegler.

At the tea given by the president at her home, there were 18 ladies present despite the long distance necessary to be traveled amid a steady downpour of rain. Our guests of honor were 4 mothers of physicians: Mrs. M. S. Witmer of Beasley's Point; Mrs. R. C. Smith of Ocean City; Mrs. Charles M. Gandy of Ocean View, and Mrs. David Hughes, Cape May. We regretted very much that Mrs. Hunter, and also Mrs. Taneyhill were unable to be present. We had the great pleasure of having with us again Mrs. Thomas Westcott and Mrs. Raughley, both of whom contributed so much in making the afternoon a success. We were most delightfully entertained by 3 ladies from Wildwood; violin selections being played by Mrs. Harry Weir, accompanied by Mrs. Childs, and vocal selections sung by Mrs. O'Brien. The guests were presented with flowers. It was a very enjoyable affair.

The membership of this auxiliary is 16 in number. Our active membership consists of 9 residing in different parts of the county—Ocean View, Ocean City, Wildwood and Cape May. The miles intervening make it quite difficult to accomplish anything of much importance. We do feel, however, as wives of the physician members of the Cape May County Medical Society, that by attending the meetings in company with our husbands their interests become ours, and we are also ready to help them in every way possible, be it ever so small.

Respectfully submitted,

Mrs. Frank R. Hughes,
President.

Essex, Mrs. H. Roy Van Ness.—The Essex County Auxiliary has a membership of 172. We eliminated dead wood by calling personally on 45 active members, allowing them to be reinstated, and in that way dropped those who were not interested.

We have had 4 meetings during the year with an average attendance of from 45 to 65; also 4 executive meetings with an attendance of 16, and 4 executive luncheons, preceding the meetings.

We were asked by the Essex County Medical Society to assist in obtaining an audience for a large meeting held at the Academy of Medicine, to hear Miss Corbin from the Maternal Aid Center in New York. This was a very excellent meeting.

Our Mothers' Tea was very interesting and well attended. Dr. Arthur Bingham addressed the 14 mothers who attended. One mother joined our meeting that day.

We were asked by 2 doctors to follow up an inspection made by them of the Newark Jail and House of Detention. We were met there by our Freeholder, Mrs. E. Harris, who is a member of our auxiliary, and were delighted to see the work accomplished under her supervision.

We also made a pilgrimage to Overbrook Insane Asylum, which we found to be a very excellent institution.

We have had 5 complete lists of our members printed, so chairmen of certain committees always have a complete list available.

This year we drew up a new Constitution using as our pattern the Philadelphia Auxiliary Constitution sent to us by Mrs. Wayne Babcock.

Application blanks for membership were made and 500 were sent out with the Primer mailed by us to nonmembers of our auxiliary.

Although we have given the doctors the benefit of the \$1.25 commission and have had a large committee confer with them personally, we have not placed as many subscriptions for Hygeia as we had hoped. We are planning in the autumn to put in the Essex County mailing list an announcement of our offer for Hygeia in the hopes of obtaining more subscriptions.

We have not had any social gathering but are planning card parties, teas and other social affairs for the autumn to add to our \$100 taken out of our treasury and put in a Scholarship Fund for a daughter or son of an Essex County physician; the recipient to be a member of the junior class of a medical college. This was received with enthusiasm by the doctors.

The report from the Field Secretary shows 16 talks with an attendance of 4480. This work was carried on very successfully by our chairman, Mrs. Don Epler.

In coöperation with the Educational Department of the Newark Y. W. C. A. we have organized a course on Parent Training to be given in 2 sections in the autumn. The first is a course of 6 lessons, 2 given each week at a cost of \$5. The instructor is a registered nurse, an experienced teacher and the mother of 2 small children. Twenty thousand circulars were printed and distributed by our auxiliary to Parent-Teacher Associations, churches, Industrial Building Insurance offices, department stores, and 6000 among our Essex County doctors. The articles used for demonstration will be presented by our auxiliary, also the book of instructions adopted and prepared by members of the Executive Staff and approved by the Advisory Board from the Essex County Medical Society. These books are available at \$1. The second course is in the form of lectures which will be given by educators, physicians and psychologists on child training.

There will be 5 lectures beginning in November. These will be held in the auditorium of the Y. W. C. A. at a cost of \$1 for the whole course, or 35 cents general admission. Five hundred tickets will be distributed with circulars in the early autumn. This is the first time the Y. W. C. A. has worked in coöperation with an organization, but we were received with enthusiasm, as the Y. W. C. A. had thought of introducing such a course but did not know how to begin.

Our Advisory Board of doctors has asked us to solve this problem: What can be done for the small children when it becomes necessary for the

mother to go to a hospital? We are going to consider the advisability of starting a Mother Agency. This matter will be brought up in the autumn for approval.

Respectfully submitted,

Mrs. H. Roy Van Ness,
President.

Gloucester, Mrs. E. E. Downs.—At the present time we have a membership of 27, 2 members having joined within the past 6 months.

During the past year we had 6 very pleasant meetings. In November the auxiliary gave a luncheon in honor of our State President, Mrs. James Hunter, Jr. At its January meeting, the Gloucester County Medical Society invited us to be guests. In March we were entertained at a luncheon given by our secretary, Mrs. Chester I. Ulmer. On May 14 we had the doctors' mothers as our guests. This was a very successful affair. We also had the pleasure of having with us Mrs. Walter Jackson Freeman, President of the Woman's Auxiliary to the Medical Society of Pennsylvania, and our own State President, Mrs. James Hunter, Jr. We are greatly indebted to Dr. and Mrs. Dan Renner for their kind hospitality extended us on our recent pilgrimage to the State Epileptic Village at Skillman, N. J.

I feel that I must mention the work done by the Chairman of our Public Health Committee, Mrs. J. Harris Underwood, through whose efforts Hygeia has been introduced to the public. This has not only been beneficial to them but a source of revenue to our auxiliary.

We are planning next year to make our meetings more instructive and successful than the past year.

Respectfully submitted,

Lydia P. Downs,
President.

Hudson, Mrs. J. Nevin.—The Hudson County Auxiliary with a membership of 92, and an average monthly attendance of 38, has made marked progress during the past year. At various meetings we have had such interesting speakers as Dr. Julius Levy, Dr. Sullivan Herbeman, Mrs. James Hunter, Jr., our State President, and Miss Hanna, representing the work that is being done by the Metropolitan Life Insurance Company along the lines of disease prevention.

Our large midwinter card party was an outstanding success as well as several smaller gatherings. The proceeds helped us to aid the following worthy charities: Salvation Army, Hebrew Home for the Aged, Queens Daughters Day Nurseries, Good Will Industries and the Jersey City Chapter of the American Red Cross.

The annual May Day Luncheon, Golf and Cards at Arcola Country Club closed a successful season.

Respectfully submitted,

Nellie D. Nevin,
President.

Ocean, Mrs. Frederick N. Bunnell.—We have had 3 regular meetings and a union meeting in connection with Ocean County Medical Society. The union meeting included a dinner and social evening at the Laurel in the Pines, Lakewood, and was in honor of Dr. V. M. Disbrow, who had practiced for 50 years.

We tried to arrange our regular meetings at the same time and in the same town where the Ocean County Medical Society was meeting, but through unavoidable circumstances in each instance we were unable to do so.

At our meetings we aim to have something of profit as well as entertainment and a pleasant social time.

We have a committee to look into the question of the circulation of Hygeia, in our different communities.

Through the efforts of our members, an afternoon was arranged last autumn for Mrs. Taneyhill to address the Good Fellowship Club at the Lakewood Y. W. C. A. About 50 people were present. They were intensely interested in her story of toxin-antitoxin. She told them she had already arranged a date to speak to the Parent-Teacher Association in Lakewood in the spring.

We had the President of the Barnegat Parent-Teacher Association write Mrs. Taneyhill asking for a date, but at that time Mrs. Taneyhill was getting in touch with all the county superintendents of schools in New Jersey so no further effort on our part was necessary.

Ocean County is over-organized with health agencies, so we just try to have them feel that we are ready to coöperate.

We stand ready to help if the Ocean County Medical Society should ask our help in any matter.

Respectfully submitted,

Helen W. Bunnell,
Retiring President.

Passaic, Mrs. James P. Morrill.—The Passaic County Auxiliary has 4 regular meetings a year, each meeting with a literary or educational program followed by a social hour. The past year the meetings have been held in the afternoon at the Paterson Woman's Club, as an experiment changing from the evening meetings previously held at the Health Centre at the time of the county meeting. The attendance has been about the same.

In addition to the regular meeting a card party was held in February to augment the money received from annual dues of \$1, and in April a trip to Valley View gave the members an opportunity to inspect this splendid new tuberculosis sanatorium.

There are 7 new subscribers to Hygeia among the members, and at the last meeting \$10 was voted to be used for placing Hygeia in schools or reading rooms where it is not already on file. Our membership totals 46.

Respectfully submitted,

Ethel M. Morrill,
President.

Sussex, Mrs. Robert White.—The Woman's Auxiliary to the Sussex County Medical Society enrolled during the year 1929-1930 a total of 22 members. The sudden death of a loved and honored member, Mrs. Ephrem Morrison of Newton, left 21 members which is 115% for the county in terms of the total membership of the medical society.

Since the last annual meeting of the state society, there have been 5 meetings of the auxiliary, 1 during the summer with the inspiration of a visit from Mrs. Hunter, other officers, and Mrs. Taneyhill, and 4 times at regular meetings of the medical society. The one in October was with the medical society when it celebrated its one-hundredth anniversary.

Three subscriptions to Hygeia have been placed in schools.

An introductory trip to Glen Gardner was initiated with resulting enthusiasm and satisfaction from the 11 persons in the party. Another excursion

sion is planned for September for a wider circle of interested friends in other towns.

A meeting in honor of the mothers of our county physicians is to be held in June, with reports fresh from the state meeting.

Mrs. Taneyhill's scheduled visit to Sussex County schools was stalled for a time by oversight or misunderstanding in the County Superintendent of Education's office. Mrs. Taneyhill came to us late in May with appointments in 5 schools. She stayed over an extra day to attend the last meeting of the auxiliary and brought enlightenment on the history, present system and aims of the Health Program of the Medical Society of New Jersey through coöperation with the Educational Department. Sussex County people always like to hear Mrs. Taneyhill and are glad to count her as a friend.

While the report of actual work accomplished by the auxiliary during the year is almost negligible, the rising spirit of enthusiasm in its members counts for much. We feel that the existence of the auxiliary is largely responsible for 5 well attended profitable meetings of the county society instead of 1 or 2 of past years. Knowing one another better, and adding a social note with refreshments served, has brought to the medical profession as well as to us as individuals, an increase in friendliness and coöperation which is quite worth while.

We cannot do much work, but we will "stand by". Good will has been our policy this year.

Respectfully submitted,

Sarah C. White,
President.

Union, Mrs. H. V. Hubbard.—The Woman's Auxiliary to the Union County Medical Society has held since last June 3 regular quarterly meetings, 2 executive board meetings, 1 committee meeting and a reception. The regular meetings were held concurrently with those of the Union County Medical Society. At one Executive Board meeting the members were guests at a luncheon and an elaborate tea was served by the hostess at the meeting of the committee which planned the reception.

The reception on April 4, in the President's home, was given in honor of the doctors' mothers and the President of the Auxiliary to the New Jersey Medical Society, Mrs. James Hunter, Jr. The presidents and secretaries of the neighboring counties were invited to the reception. An inspiring address by Mrs. Hunter and vocal music were enjoyed.

Special features of the programs of our meetings were: An address on Pasteur by Mrs. Taneyhill; moving pictures of European scenery taken by a member of the Union County Medical Society, who had recently been to Europe; an address by Dr. McBride, President of the New Jersey Medical Society, on the "Constructive Work the State Society is Trying to do to Combat the False Propaganda Put Before the Public". Dr. Henry O. Reik talked about the Primer which the State Society has gotten out on the whys and wherefores of the association.

The number of names on our roll to date is 82; the number of new members who joined this past year is 8; the number of paid up members is 59.

Constructive work accomplished this past year is as follows:

(1) A telephone squad was formed and is working very satisfactorily. It consists of a group appointed in each large town to 'phone each woman and ascertain whether or not she will attend the

meeting about to be held. A personal contact very effective.

(2) The Secretary is keeping a scrap book of all the notices and reports published about our meetings and work, with any other interesting data which may come to hand.

(3) Work has been started to have a correct up-to-date mailing list and especially to have the home addresses on file of every doctor's wife in the county.

(4) The Primer for the Woman's Auxiliary has been mailed to every woman in the county as far as possible with present records.

(5) We are planning a card party to raise funds for any emergency.

Our present aim is to keep at least a small group actively interested, ready to help the medical society reach every woman in the county, when needed for an emergency or special work. To send as often as possible notices, booklets, etc. to every doctor's wife in the county to keep them informed and reminded of the existence of such an organization and eventually get all interested and active.

Although the auxiliary did not make the appointments for Mrs. Taneyhill to lecture in Union County, she gave over 15 lectures to over 7875 pupils in the schools of the county this past year. The auxiliary members have recommended her and her lectures to various organizations and hope for good results from their efforts.

Respectfully submitted,

Viola B. Hubbard,
President.

Business was again suspended to permit Dr. Andrew F. McBride, President of the Medical Society of New Jersey, to present his greetings. He congratulated the society on the work already accomplished. The need he impressed upon them was great and he expressed a desire that every physician's wife be not only a member but take an active interest in all work for the eradication of disease.

Mrs. Hunter assured him that the women were not only willing but anxious to be loyal helpers and a rising vote of thanks followed.

The convention was honored by having as its next speaker the President-Elect of the Auxiliary to the American Medical Association, Mrs. J. Newton Hunsberger. She spoke on the National Auxiliary, reviewing its history, its aims and its accomplishments: 37 states have been organized with a 10,000 membership total. She was flattering in her praise of the work of New Jersey, alluding particularly to Essex County's unusual work. She made a strong appeal for us to go to Detroit and drink at the fountain head. Her address was enthusiastically received.

The chair had a distinct pleasure in presenting the next speaker, Mrs. Walter Jackson Freeman, President of the Pennsylvania Society. Mrs. Freeman is the daughter of the internationally beloved Dr. W. W. Keen, the widow of the distinguished Dr. Freeman, and

the mother of 2 sons whose names are already "shining bright" in medical circles.

She charmed us by her pleasing personality and her message was well received. She gave a brief résumé of efforts and accomplishments in the state and then referred to the work of the Philadelphia County Medical Auxiliary in relief work among needy physicians. We still feel the inspiration of her presence.

In order that all might have ample opportunity to greet personally these 2 outstanding women, the meeting adjourned upon motion. An informal reception for Mrs. Hunsberger and Mrs. Freeman concluded the first day's session.

Friday, June 13, 1930

The report of the Nominating Committee was called as the first item of business at the second session of the auxiliary. Mrs. George L. Orton, Chairman, asked the indulgence of the delegates to a short delay. This was granted. Business was deferred and the delegates heard the report of the Field Secretary of the Medical Society of New Jersey, Mrs. E. C. Taneyhill.

Upon its completion, Mrs. Russell Shirrefs moved a vote of recognition be given by the delegates to Mrs. Taneyhill and spread upon the minutes. This was so ordered.

Mrs. Orton announced that the report of the Nominating Committee was ready. The following names were offered: President, Mrs. John Nevin (Hudson); President-Elect, Mrs. H. Roy Van Ness (Essex); Treasurer, Mrs. Edward W. Clarke (Bergen); Recording Secretary, Mrs. Dan S. Renner (Somerset); First Vice-President, Mrs. H. H. V. Hubbard (Union); Second Vice-President, Mrs. William Raughley (Camden); Third Vice-President, Mrs. William Westcott (Camden). Directors: Mrs. Emanuel Newman (Essex); Mrs. William Freile (Hudson); Mrs. George Culver (Hudson); Mrs. Henry Diverty (Gloucester); Mrs. George N. J. Sommer (Mercer); Mrs. George Rogers (Essex).

Mrs. Mulford offered a motion, seconded by Mrs. Hubbard, that the report be acted upon as a whole, the names to be acted upon separately.

Mrs. William Westcott refused the nomination for Third Vice-President, whereupon Mrs. Joseph Morrow (Bergen) was substituted.

Upon motion of Mrs. Clarke, the nominations were closed. Mrs. Shirrefs moved that the Secretary be instructed to cast the necessary ballot. Upon completion of these formalities, the chair announced the elections.

The Secretary presented an invitation from the Epileptic Colony at Skillman (Dr. Dan Renner, Superintendent) to its Annual Field

Day, a feature of which was the presentation of an operetta.

A letter from Mrs. DePew, National Historian, was read. She urged the preservation, the filing and the care of all interesting items connected with the auxiliary, sending whenever possible duplicates for the national archives.

Mrs. Hubbard offered a motion, seconded by Mrs. Shirrefs, that the auxiliary in the oldest county medical society take entire charge of this after consulting Dr. Morrison, Secretary of the State Society, for necessary information.

Dr. Henry O. Reik, Executive Secretary presented himself, and so the business was suspended to give the delegates the pleasure and opportunity of hearing him. He said that he was glad to greet his children and then, referring to his report, spoke encouragingly of the auxiliary's efforts. He urged us to talk preventive medicine, to send accurate information to the Journal, to keep ourselves well informed on medical matters through the State Journal. He gave a brief résumé of the departments found in the Journal—something interesting for each and all. The auxiliary expressed its appreciation by a vote of thanks.

Dr. Arthur Cramp, Field Worker of the A. M. A., gave his interesting illustrated talk on "Mrs. Gullible's Travels in Cosmetic Land". His lecture began with a graphic description of the preparation and ingredients of a hair tonic in vogue way back in an Egyptian dynasty. Then down through the ages he traced the various efforts of all to beautify and adorn. So much harm had been done that the National Food and Drug Act made the use of drugs illegal. Depilatories, hair dyes, freckle removers were thoroughly discussed and in the lime-light of intelligence were pronounced fakes. Obesity cures of general interest were ruthlessly dealt with and pronounced fraudulent. Dr. Cramp used the lantern to intensify his arguments.

Delegates to the National Convention at Detroit occupied the attention for a period. So few were going. It finally resolved itself into placing the delegate cards in the hands of Mrs. Ephraim R. Mulford, giving to her the power of presenting the proper credentials to any of the New Jersey membership attending the convention. Mrs. Hagerty (Essex) and Mrs. Schneider (Essex) volunteered for service and were provided with proper credentials. This method is to be regretted. New Jersey was entitled to 7 delegates and 7 alternates. Funds are not available to provide the necessary expenditures. With the National Convention near at hand—Philadel-

phia 1931—the auxiliary should have no difficulty in having accredited delegates to represent it.

Mrs. Massey (Atlantic County) spoke earnestly of a membership drive during the coming year.

Mrs. Orton made a motion, seconded by Mrs. Hubbard, that a letter be circularized urging interest in and collection of funds for benevolent purposes. This motion was carried.

Mrs. Dan S. Renner presented to the outgoing President, Mrs. James Hunter, Jr., a silver vase suitably engraved. This was a token of appreciation and esteem. Mrs. Hunter gratefully acknowledged the gift.

Business completed, the convention closed with the presentation to Mrs. John Nevin, President, of the gavel, concluding with the installation of all officers for 1930-1931 by the outgoing President.

Upon motion, the meeting was adjourned.

MEETINGS OF THE COUNTY SOCIETIES

Atlantic County.—Meets second Friday evening monthly, except in June, July, August and September. Annual Meeting in November.

Bergen County.—Meets on second Tuesday each month, except July and August. Annual Meeting in January.

Burlington County.—Meets second Wednesday afternoon of January, March, May, September and November. Annual Meeting in November.

Camden County.—Meets first Tuesday in each month, October to May inclusive, with an outing on second Tuesday in June. Annual Meeting in October.

Cape May County.—Meets on first Tuesday in April and October. Annual Meeting in October.

Cumberland County.—Meets on the second Tuesday of January, April, July and October. Annual Meeting in October.

Essex County.—Annual Meeting is the first Thursday in October. Other meetings on the second Thursday of each month, November to May, inclusive, on call of the President.

Gloucester County.—Regular meetings on the third Thursday of each month, October to June, inclusive. Annual Meeting in November. Annual Social Session in September.

Hudson County.—Meets first Tuesday evening of each month, October to May, inclusive. Annual Meeting in October.

Hunterdon County.—Meets on the fourth Tuesday of January, April, July and October, the latter being the Annual Meeting.

Mercer County.—Meets on the second Wednesday of each month, except July, August and September, at 8:30 p. m., in the Carteret Club

at Trenton. Annual Meeting in December. Annual Banquet in November.

Middlesex County.—Meets on the third Wednesday afternoon of each month, September to June inclusive. Annual Meeting in December.

Monmouth County.—Meets on the last Wednesday in each month from October to June inclusive. Annual Meeting on the Tuesday after the first Monday in December.

Morris County.—Meets on the second Tuesday in March, June, September and December. Annual Meeting in September. Special meetings (1-3 yearly) for additional scientific discussions arranged by Executive Committee.

Ocean County.—Meets in May and November as called by the Secretary. Annual Meeting in November.

Passaic County.—Meets on the second Thursday evening of each month, except June, July and August. Annual Meeting in October.

Salem County.—Meets on the second Wednesday in February, April, October and December. Annual Meeting in October.

Somerset County.—Meets on the second Thursday afternoon in February, April, June, October and December. Annual Meeting in October.

Sussex County.—Annual Meeting on the second Tuesday in September; other meetings bi-monthly, September to May inclusive.

Union County.—Meets on the second Wednesday of January, April, July and October. Annual Meeting in October.

Warren County.—Meets on third Tuesday of January, April, July and October; the last named being the Annual Meeting.

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SYMPOSIUM

SCHOOL HEALTH WORK

Special meeting of School Physicians, under auspices of the Medical Society of New Jersey, Atlantic City, June 11, 1930.

PLACE OF THE PHYSICIAN IN THE SCHOOL HEALTH PROGRAM

A. G. IRELAND, M.D.,

(Director of Physical and Health Education, Department of Public Instruction.)

Trenton, N. J.

The School Health Program is the accepted name for a group of activities that has been developing for a period of 30-40 years, but mostly in the last decade. It is a natural product of a natural development; first, in educational purpose and procedure, and second, in the allied fields of medicine and public health. Recent years have seen remarkable changes in education. Perhaps the outstanding feature has been a shifting of emphasis from the subject-matter learned to the subject doing the learning, that is, the child. Recognition of the child as a person, an individual, as a personality, dominates the school of today. His field of study is life itself. His objective in that study is living or how to live well, richly, completely. During the same years, medicine and public health have advanced to new aims and new procedures. We know infinitely more about the child, mentally and physically, than could have been anticipated not many years ago.

Bring the 2 together, that is, education and medicine, and the inevitable result is the school health program, not a thing apart from the educational program, but a part of it, an integral part, interwoven in the fabric of the school. Thus, the school today is concerned with the lives, not the schooling alone, of a mass of individuals. It aims to send these individuals out into life physically prepared to withstand the demands of work and the encroachment of disease, mentally equipped to look ahead, always ahead, with hope and good cheer, and with the potentialities of good citizenship and good parenthood. In this new education, it was inevitable that the physician, the dentist, the nurse, should be called; and the art teacher and the music teacher, and the home economics teacher, for each contributes to the richness and fullness of right living.

The essential thing mentioned so far is integration, a oneness of everything done in the school for a common purpose. The old school had 2 sides: one was the schooling process, the other was medical inspection. The 2 had little in common. The school was just another home, or clinic, or hospital on the physician's rounds. The search for disease dominated. It was purely a protective measure, of value to that point, but losing sight of the further great possibilities which are now being revealed.

The new school establishes its goal, life. To attain the full meaning of that goal, there are many contributing factors. In a large number of them, the school needs and calls for the talent and intelligent direction of the physician. It is sufficient to list a few of the factors with a brief comment.

(1) Environment: its hygienic and sanitary aspects; its lighting; heating, and ventilation; available sunshine; cleanliness; seating; toilets; washing facilities; water supply; furniture and blackboards in relation to vision; facilities for the care and drying of clothing; and so on.

(2) Organization of the school for health: length of day; length of periods at age-grade levels; time for lunch; home study; arrangements of subjects; type of materials and equipment.

(3) Health status of the pupil: other things being equal, the healthy child is the better pupil; what are his handicaps to learning, to rich living, to the formation of right habits and attitudes; and how we may bring him up to a condition of fitness that will facilitate learning and living, are among the questions put to the school physician.

(4) Educational factor: learning takes place through everything the child does; learning is the acquisition of experiences; it is a thing of action or related to action, not passivity; hence, the physician's examination, the nurse's visit, first aid, are among the many possible educative situations through which the child passes. He acquires experience from what the physician, dentist, or nurse does or says; he may develop a new point of view; he may be impressed either favorably or unfavorably. The examining room then should be organized and conducted as a classroom, as a laboratory of educational experiences.

Returning to the idea of integration, what are the school needs? It wishes to know, what is holding back this pupil from learning to the extent we know him capable of? Why is he a behavior problem? Why is he dull, apathetic, truant? What does the physician say that will put the teacher on the right track, and what can the teacher tell the physician that will give him an insight into the child's needs?

The nurse, the visiting teacher, and the attendance officer may be important in rounding out the picture. Where and how does the child spend his out of school hours? What is the family and social life at home? Is he getting enough to eat? When does he go to bed? Does he work late at night?

The school charged with education of the child is necessarily concerned with the whole child. Correct living is not a knowledge of reading, history, arithmetic. The school, therefore, must find the pieces of the puzzle and fit them together. Such is educational procedure. In it, the teacher, physician, dentist, nurse, special supervisor, and all the others have a part, but the success of the whole depends upon how the efforts of each are coordinated.

The school wants a *real* examination. It asks for that *with clothing removed*, and eventually, with both a parent and the teacher present. It asks for intelligent guidance in putting this child on the road to right living.

The school wants to know where its facilities and equipment are at fault and where its program is detrimental to the child. So it asks for a study of the stress and strain of study, for an examination of athletes, for advice on special cases, and for guidance with the malnourished, tired, or nervous child.

Coordinated effort is the key to efficiency in this educational procedure. To the school, we must look for intelligent organization of these efforts into an integrated whole. The essential factor is time. It will take time. School physicians are underpaid. They are asked to perform unimportant tasks. Frequently, they are set off by themselves and, unfortunately, much of their labor goes for naught. But the school health program is new. It will work out. Only time, patience and continued effort are necessary.

THE PHYSICIAN AND HIS CONTRIBUTION TO EDUCATION, FROM VIEW-POINT OF THE SCHOOL ADMINISTRATOR

FRANK G. PICKELL,
Superintendent of Schools,
Montclair, N. J.

Even the casual observer must be impressed with the ever enlarging scope of public school activity. Formerly, the school held itself responsible for formal instruction of the child during the hours of the school day, and for

the preparation of lessons at home. Gradually the school has come to recognize the fact that it must take into account the whole life of the growing child. Consequently, we find today that the school provides recreational facilities, lunches for the under-nourished, special classes for the mis-fits, physical education and corrective gymnastics, classes for those having speech defects, classes for the blind and near blind, classes for the deaf and so on. These are but indications that the school recognizes that something more than the old formal program is necessary if all children are to have a fair chance.

It is but natural that the movement to enlarge the responsibility of the school to care better for children should find definite expression in some form of health program. We cannot consider today the question of school efficiency without at once running into the problem of the health of children. Hoag and Terman say, in their book on *Health Work in the Schools*: "The conservation of the child is a problem which, like that of world peace, is bound to take possession of the minds of all humanitarian people. To the ethical principle of humanitarianism is added the stern counsel of biologic laws which teach us that an elaborate scheme of mental culture which proceeds without regard to the needs of the body is but a house built upon the sands." Fortunately, we are becoming conscious of the fact that removal of physical defects and prevention of illness are among the paramount concerns of the school. The great number of adults in the present generation who have physical defects show the result of educational neglect in the past. Many such defects are being discovered today through watchful care of the school and the result will be a more physically fit adult generation tomorrow.

I cannot stress too strongly the fact that the school has become conscious of the importance of the health of children. Whereas we formerly paid no attention to this problem, now we recognize its importance, and, therefore, we shall see an enlargement of the scope of this phase of school work. It is hard to believe that for many years we taught chil-

dren and gave no heed to deficiencies of hearing and vision, or bad teeth, diseased tonsils, adenoids, heart action, undernourishment, hernia, flat feet, muscular incoördination or nervous disabilities. Alarming facts revealed by statistics show the seriousness of our former short-sightedness. In Boston, in 1922, 50% of the children in class rooms were not in physical condition to enable them to secure maximum benefit from instruction; in 1921, in the state of Pennsylvania, 74% of the children living in districts having a population of 5000 or less had such defects; in New York State, in 1924, the percentage of physical defects among children was 61.5. Naturally, the scope of school health work has enlarged. As we have studied the problem we have discovered that a well rounded school health program must seek to disclose all the causes of physical unfitness and to set up educational activities that make for physical vigor. In other words, we have passed from mere medical inspection to the field of preventive work.

In this enlarged program, one of the most faithful and outstanding individuals has been the school nurse. Too much cannot be said in behalf of the faithful service of the trained school nurse. It is through her devotion to the cause of school health work that we have been able to make so much progress in the way of educating parents as to the necessity for removal of causes of illness among children.

The health of school children is a matter of community concern. It is impossible to think of the health of school children as something separate and distinct from the welfare of the community as a whole. It is from this standpoint, if from no other, that the school program of health work is one which must command the whole-hearted coöperation of the practicing physician, the nurse, the dentist, the teacher and the school administrator.

School health work may be said to present 3 phases of development. First, we had "medical inspection", the chief purpose of which was to control the spread of contagious diseases; second, we began examination of the

eye, ear, nose, throat and teeth, and to pay attention to undernourishment, heart action and certain other defects more or less readily discernible; third, and this is the stage of present development, we began to set up a program for prevention of illness through the establishment of sane physical activity and the promotion of sound health habits. This last, or present, stage of development of health work has resulted in the establishment of school health clinics, such as the dental clinic, and the physical examination room where minor treatments and operations can be made. Such clinics are presided over by the doctor and nurse and examinations are made in the presence of the parents.

Some may argue that all this is a passing fad, but by 1915, 26 states and by 1923, 39 states had taken definite cognizance of the need of school health work through the enactment of state laws on the subject.

Although there seems to be much evidence that school health work will be enlarged still more, the medical profession need have no fear that the school is interested in absorbing the work of the practicing physician. No ethical doctor would give the statement—that the school is going too far—any serious consideration. On the other hand, he would endorse the present movement toward a more comprehensive health program as one entirely in accord with his ideal of preventive practice. What we need above everything else is the help and professional advice of the physician in order that the work may be enlarged along approved and effective lines. The school is interested in preventive work and the removal of defects, but it takes the position that defects should be removed by the family physician.

One of the weaknesses of the school program is found in the fact that it is difficult to secure coöperation of the parents, and sometimes the family physician, in the treatment of reported defects. Children whose eyes need attention are not fitted with glasses, diseased tonsils are not removed; a running car runs on; teeth are neglected. Our attention should now be directed toward discovering the most effective means of follow-up

work, in order that the purpose of reporting defects may not be defeated. Only a very small percentage of parents respond to the school medical reports which call for treatment. Here again, the school must have the full coöperation of the practicing physician.

It may be in place to suggest that 2 or 3 steps may be taken to secure a maximum of response from parents. First, the all too common attitude of the practicing physician to look lightly upon what the school is trying to do should be replaced by a helpful, interested attitude. We very often find that the busy general physician regards the "school physician" as a youngster who has not yet earned his right to serious consideration. In fact, it is extremely difficult today to secure the services of a physician who has already built up a practice. We often must take the beginner. There are, of course, many outstanding exceptions, and I am happy to say that we have been fortunate in Montclair in this respect. Our physicians are established and their counsel and advice carry full weight, not only with parents but with the medical profession as well. Every city of any size should have on its staff at least 1 doctor who is well and favorably known by the profession. In the second place, some better program for following up reported defects must be found. Much of this work with the parents should be done by the school nurse, who should visit the homes. In the third place, reports of physical defects might well be sent to the parent and also to the family physician. If this were done, and I am not certain as to its feasibility, the idea would be that the family physician could take some tactful steps to help show the parents the need for treatment. There may be too many reasons against this suggestion to warrant its consideration, but something needs to be done to secure a greater percentage of responses to the reports sent to parents. One thing is certain, we shall not make great progress in school health follow-up work without sympathetic coöperation of practicing physicians. They first must see what we are trying to do and then support us. Probably the most effective educational program would result from having parents

present when the physician and nurse examine the child. In this event, the parents would learn at once the seriousness of the defects discovered and the consequences of neglect. This situation would give the physician an opportunity to instil into the minds of parents the importance of proper care of the child to the end that his development may be not retarded by causes which could be readily removed.

The schools need the best physicians they can secure for their health work. Usually, the arrangements have called for 1-2 hours of the physician's time each day. It would probably be impossible to secure the full time of a physician who has a fairly large practice, partly because he would not wish to give up that practice and partly because the school could not adequately remunerate him. The part-time arrangement seems to offer a better chance of securing the more experienced doctor, but one thing the school must understand, and that is, that the good doctor must be adequately remunerated.

Some difficulties in our school health program are due to ignorance on the part of the public, and to the limitations placed upon us by the law. For example, in this state we are supposed to limit physical examinations to a cursory inspection of the eye, ear, nose and throat. Without the definite consent of the parent, we are not permitted to remove the clothing and make a complete examination. This at once makes it impossible for us to diagnose many of the causes of illness or to detect the weaknesses we could otherwise uncover. We need the assistance of physicians to bring about a change in the law which will enable us to make a complete examination of every child. At present we are handicapped because many children, backed by their parents, do not wish to submit to the stripped type of examination, and without parental consent we are blocked. Every child who takes the more strenuous work required in the gymnasium, or who participates in interscholastic athletics, should certainly have a thorough physical examination—and this cannot be given unless the clothing is removed. Remedial work in schools cannot be sound

unless it is premised upon the stripped type of examination. Some defects which should be discovered early, cannot otherwise be located until it is too late.

School health work has progressed far beyond its first stage of mere "medical inspection". The school now recognizes that it should discover defects, do everything it can to bring about their correction, and that it should establish a program to teach children proper health habits for the prevention of disease. Indeed, one of the school's greatest responsibilities is conservation of the physical well-being of childhood, to the end that the nation may have the benefit not only of trained minds, but trained minds in sound bodies. Only by consideration of the whole child—his mind, spirit and body—can the school fulfill its obligation to posterity. The importance of this work was well stated by President Hoover when he said: "If we would grapple with the whole child situation for 1 generation, our public health, economic efficiency, moral character, sanity, and the stability of our people would advance 3 generations in 1."

DEVELOPMENTS OF SCHOOL HEALTH PROGRAM AS SEEN BY THE SCHOOL NURSE

EVELYN T. WALKER, R.N.,

County Advisory Nurse for Monmouth
County, N. J.

My subject, "Development In the School Health Program As Seen By the School Nurse", certainly gives the nurse an opportunity to think aloud. I must confess, however, that the thoughts expressed here are more or less personal, although I am sure that my fellow nurses for whom I speak will agree with me on most points.

THE NURSE'S PLACE IN THE SCHOOL

The place which the nurse should occupy in the school has never been clearly defined. Sometimes I think that this is just as well, because she will evolve with the school program rather than be superimposed upon it. Although nurses have been employed in the

schools of New Jersey for a number of years, it was not until 1927 that the school boards were authorized to employ nurses as such. I like to think of the nurse as the "missing link" in the public health chain; she can be used to strengthen that chain wherever needed.

Of course, she likes to consider herself the right hand man of the Medical School Inspector, because professionally she and the doctor have more in common and, in so far as the children's health is concerned, speak the same language, but she should recognize the fact that she is part of the school system and as such under direction of the principal of the school except for distinctly technical matters. The school nurse and the teacher have to work out many problems together but perhaps her greatest contribution is in interpreting the school to the home where, strange as it may seem, the chain is often weakest. A nurse has a unique entré to the family and no one is better situated to be the liaison officer between school, family and physician.

For instance, the private physician cannot advertise his willingness to give preventive health treatments, but the nurse can urge health examination, immunization, dental care, etc.

In speaking of the school nurse, I have in mind a well trained Public Health Nurse who is carrying on a generalized program in her community while devoting a large portion of her time to school work. She should, of course, have special training or unusual experience in school work to be able to develop her work well. Special courses in school nursing are offered by most universities and are arranged for by the State Department of Education and by private organizations. All recognized organizations doing school work devote much time on their staff education programs to "school nursing". In order to realize developments, we must look backward. The school health program until about 10 years ago was so disconnected that it could hardly be called a program. In the school laws of New Jersey there was an elaborate chapter dealing with medical inspection, in which the doctor was told what to do and how to do it,

and if carried out it would have taken up so much of his time that he couldn't practice; and in return for these services the Board of Education offered him the sum of "almost nothing" per child. What happened after medical inspection was left to conjecture, as a rule, although some teachers and parents made an effort to do something about it. There were text-books on health and hygiene more or less intelligently used by the teacher. There were physical exercises of sorts occasionally conducted by a trained person but more often by the teacher. Home economics, if included in the school curriculum, was unrelated to other health activities. The nurse, if existent, was called the "attendance officer", or slipped in under some other pseudonym.

Today, the nurse sees an effort being made on all sides to correlate the various health activities so as to make them dovetail and form a sound structure. *Medical school inspection* is the crux of the whole plan; if thoroughly done and if the findings are properly used, a program can be set up which should result in better health, improved educational capacity and more happiness for all concerned.

(1) Under this plan the *physical educator* receives reports in reference to children who should or should not follow the regular schedule.

(2) The teacher knows which child should sit near the front because of improper vision or deficient hearing.

(3) The home economics department may do something about special nourishment, or instruction for the overweights or underweights.

(4) The parents receive a report of findings, which is definite and intelligible.

(5) The family doctor can respect such findings and take more interest in helping to get the child in good condition for school, and the nurse is very busy getting a good history, interpreting the findings to the teachers and home and assisting wherever possible in having defects and deficiencies corrected.

We are at present in a period of evolution and are not quite sure what part each has to play. Today, the nurse has relieved the doctor of many of his past duties, such as his

tory taking and charting; the teacher is fast relieving the nurse of some of her former duties, such as weighing and measuring, and cleanliness drills; and we are all trying to find out how we can best serve the home and the child. Sometimes the nurse wonders why so much responsibility for health rests on the school authorities. Why do we have dental clinics in the schools? Why is it the school doctor who finds serious defects and the school nurse who has to work so hard to get them corrected? It must be because the home and the community have failed to meet their responsibilities in the pre-school years. There would be no dental clinics if the children came to school with teeth in good condition and if this care were continued. There would be very little need for medical inspection if a child came to school with a medical certificate from the family doctor showing his exact physical condition and with the assurance that the child would be kept under observation by the family doctor during school life. A child who cannot see well, who has toothache, or who is very much below par mentally or physically, does not do well in school and not only is he unable to benefit by the opportunities provided for him by county and state, but by his restlessness, inattention or inertia, sets a bad example and prevents others from receiving full benefit.

The schools, in coöperation with the boards of health, are fast assuming responsibility for immunization against small-pox and diphtheria—again in self-defense. Doubtless the school authorities would be very glad to receive certificates of immunization when the child first enters school. There is evidence that the public and the school authorities are realizing the need of better health standards in schools. They are spending more money to secure the services of nurses and doctors with special training or experience for the work, and on playground equipment, vocational schools, and special classes for those who can best develop along those lines. The state is also spending more time and money every day in

building up the mental and physical health of the school child. The teacher is awakening to the fact that a pupil, to be a credit to her, must have his physical and mental health cared for, and that the nurse and doctor are not extra-curricular but an integral part of the educational program.

As the nurse looks into the future, she thinks she sees children coming to school in better physical condition, as the result of an awakened community interest in health supervision in the home, from the prenatal period onward, by a physician of the family's choice, and with regular health examinations a part of the home routine. She sees the teacher doing more of the health work in the school and the nurse more of the health work in the home and community. She sees health education being absorbed into every subject. She sees school nursing work as part of a generalized nursing program, where she assists the home and the doctor in supervising the child's health from before birth until he reaches school and then continues her interest enlarging her field of contacts to serve the school authorities and place at their disposal her knowledge of home conditions and the influence she has gained in the pre-school years. To sum up, the nurse sees the health of the school child as the joint responsibility of the community and the home, and of the school only as a unit of community life. If the home does not do its part, the school is obliged to do more and more along health lines to protect the children who spend one-third of their waking hours in school. The nurse hopes to be able to do her part in placing responsibility for corrective work on the family and the physician of its choice, and in encouraging the development of an all-round health education program in the schools.

On behalf of the members of the profession, which I represent, I would like to assure the medical profession of our respect for its members and of our desire to work with them in developing the right type of health program for the school child.

SCHOOL HEALTH WORK FROM THE PHYSICIAN'S POINT OF VIEW

STANLEY NICHOLS, M.D.,

Associate in Pediatrics, New York Post-Graduate
Medical School and Hospital

Asbury Park, N. J.

My excuse for accepting this opportunity to present the cause of the school physician in this matter of school health is my deep interest in child health which has grown steadily during 18 years of work as a school physician—the last 10 being spent entirely in children's work in such fields as baby clinics, pre-school clinics, school health work, medical school teaching, hospital service and private practice. I am fully aware that many of you are far better qualified to speak on this subject of school health than am I, and I only wish to present briefly a few of the observations and questions that have occurred to me while working in this field. First, why school health? So that children shall be well enough to take advantage of the educational facilities provided. A more important reason is that, in their growing age, they shall build good health habits and the best possible health constitution for the adult life work ahead of them. There is no question that good health is essential in most cases to happiness and success in life. In fact, I would like to see a psychologic study made of the comparative health and intelligence of the 100 most successful or important people in a number of communities. Let me whisper to you my suspicion that about half would be among the "who's who" because of their brilliant intellects, but that in the other half would be found many whose intelligence quotient would be nothing to publish, but whose sound health enabled them to work steadily and live longer, and thus outdistance others as in the famed fable of the tortoise and the hare. The exceptional individual can rise above the handicap of ill health but the majority cannot. For every Helen Keller or Roger Babson there are 99 failures of individuals with similar handicaps. More people are sociologic problems today because of ill health than be-

cause of lack of intelligence. The average individual with handicapped health is like a cat chasing its tail—he does not get anywhere. The most efficient time to do health building is during childhood.

How can we obtain school health? Only by a sound health plan, adapted to fit each school system by the school physician and directed by him. With this, he must have the very closest coöperation and team-work from the school executive, school nurse, school children and their parents. Let me emphasize that while health plans may have similar general points, they must be adapted to the individual school. The plans for rural schools, town schools, and city schools must vary considerably because of many factors.

What should a school physician's training and salary be? With the few exceptions of physicians in large school systems who have had courses in public health, a school physician must train himself in school health matters. He can accomplish this by reading current literature concerning school health; by studying the excellent books now available on the subject; by visiting and studying successful school health systems; and by being interested in any phase of public health work in his community that affects children.

There are 3 types of school physicians: First, the rapidly disappearing type that bids for the school contract cheaper than any one else, has pull enough to get and hold it, and makes his inspections by tipping his hat to the teacher and saying, "Good morning children, are you all well?"—to which they answer, "Oh yes!" He thereupon leaves at once for his home where he can draw his salary and his breath, and strangle his conscience. May he soon become extinct, along with school boards that put out school health work to the cheapest bidder. Secondly, a minority who are mildly interested, who comply with the minimum standards set by the state board of education rules, and don't know what school health is all about because they have never given any over-time or thought to finding out. Finally, we have the great majority of school physicians who are really interested in their work and do it to the best of their

knowledge and ability. May their tribe increase!

Now a word as to that troublesome question—salary. Most of us believe that in health matters, as in other things, we usually get what we pay for. If this is true, how much school health should a school board buy for each school child? If I am correctly informed, the average in this state runs from 30 cents upward. I believe that in these minimum groups the child gets the amount paid for—namely, 30 cents worth of health per year. Pretty low, isn't it? A minimum of \$1 per child for health work would hardly be called squandering money, in view of the fact that it costs from \$25 to \$100 per child each year for education. In the school of the future, health and education will be on an absolute par, and I wish we could live to see it.

Now, how much should a physician be paid for his time and service in school health work? This will vary somewhat, but in our county we have been wrestling with this problem for many years and finally settled on the premise that our doctors in any public health work should receive one-half as much per hour as they could earn in private office practice. This practice was estimated at \$10 per hour, and the health work fees were accordingly set at \$5 per hour. This leaves the physician contributing one-half of the expended time to the public good, and has resulted in very satisfactory work.

As to school principals and boards, it goes without saying that a school physician cannot direct a satisfactory school health program without the hearty coöperation and support of both. This is especially true as to their following up suggestions for improving school sanitation, lighting, heating, better ventilation, proper seating, drinking fountains and other equipment affecting health. School teachers are exceedingly valuable health assistants to the school nurse in all phases of health education, and in the early recognition of sick children. Having served many schools, before and after advent of the school health nurse, allow me to state, that without question she is the most vital factor in the carrying out of any school health program.

By her coöperation with school physicians, and good follow-up work, she has tripled the efficiency of school health service. She should be well trained in the child health and public health fields, and in conjunction with the physician should be very careful not to encroach on the medical or surgical care of the child by the family physician. In regard to treatment, her activities should be limited to securing help for children in families unable to pay a physician for care and treatment. She is the most important link between the school and the home and thus her opportunities and responsibilities are very great in both places. No school health system is complete without the full or part-time services of a school nurse. As for the occasional nurse who looks down on mere physicians and can carry on a complete school health program without the aid of any school physician, let me say in all charity that I suspect she is possibly suffering from some form of "delusions of grandeur".

Now as to the intangible things that affect the health of the school child. We school physicians know that a growing child should not be chained to a desk 4-6 hours a day; that he must have a lot of muscular activity, some rest, and a great deal of sunshine and outdoor air, together with plenty of sleep and proper food, if he is to reach his optimum health at adolescence. To obtain this we must do battle for him by health educating the educators. With all due respect to educators, they know a great deal about education and mighty little about health. The daily curriculum on a school black-board, covering what a teacher must get done between 8:30 and 3:30, looks to me like the time table of a railroad. I am afraid that, like the laws of New Jersey, many things are being added to school schedules but very few are being lopped off. We must work for a simplified and shorter school day curriculum in town and country schools, and more manual and outdoor activities in city schools, to replace the outdoor facilities available in town and country. Class education, like class health building, is giving way, slowly but surely, to the individual handling of each child, and this will be the

method of the future. Our present systems are based on uniformity, and children are no more uniform mentally than they are physically. How to get rid of home studies for children up to the age of 12; how to get each child a hot, full meal at noon; how to prevent schools from being hot-beds of upper respiratory infections and contagious diseases; are a few of the problems that need much research study on the part of school physicians.

A final word as to the health study and physical examination of the child, and the health education of his parents. We will all agree that the best way to do this is to secure a complete medical history from the mother, covering from birth to the date of the examination; to examine the child completely, with clothing removed, in the mother's presence; to discuss the findings with the mother and recommend health measures for improvement of the child, together with such medical or surgical treatment by her family physician or dentist as is found necessary. Ideal, you may say, but not practical. Let me report to you the results and findings of just such a health study. Five years ago I was discouraged with the meager results of school medical inspection. Little or no medical history was obtainable; the physical examinations were too superficial; the written recommendations were often criticized or resented by the family and family physician; and the only results of the follow-up work of the school nurse seemed to justify the expenditure of public money in this field. At that time, through the interest in school health of a philanthropic individual, the opportunity for this health study presented itself in a 10-grade school at Rumson, New Jersey, enrolling about 400 pupils. At the outset, a complete medical study, history, physical examination with findings and recommendations to the mother, was offered, provided that the mother came in person. The response of the mothers was instructive, varying in direct arithmetic ratio from 30% responses in the tenth, or highest grade, to 90% in the lowest grade. The logical conclusion was that the mother was most concerned about the health of her younger children. The results achieved were

astounding to us. Fully 80-90% of the recommendations made were efficiently carried out annually. Comparatively little criticism was encountered, because defects could be pointed out and doubtful points explained personally to the mother at the time. The mother attendance grew each year until at the present time we have a complete health record for every child in the first 6 grades. Of these, the mothers were present at 95% of the examinations; the remainder were examined by written consent when the mother was absolutely unable to come.

An important economic finding is that with the nurse taking the history, examinations can be held at the rate of 4 an hour. Thus, it costs no more to make 1 thorough examination once in 4 years, than it does to uselessly repeat a superficial one annually. There is no comparison as to real results. In special cases, such as chronic heart disease, check-up examinations are made annually. For the past 2 years we have been able to turn our attention to the pre-school children from 2 to 6 years of age, where the best preventive school health work can be done. When we remember that almost all of the major defects of school life, excepting eye defects, are present in the child on the day he enters school, it is logical and economical that we should spend at least half of the school health budget in preparing the pre-school child for school. A child should enter school as physically fit as possible, and immunized against all the preventable diseases. The place for the orphan "pre-school" movement is in the school health program.

I can hear you saying—why do we always speak about the mothers in the home and leave out the fathers. The mother is the natural health guardian of the child and the home. The father is usually a good deal like the United States Senate—he often exercises his veto power but rarely initiates health legislation in the family circle. I will not embarrass you by proving my point against the male sex by asking all the men in the audience who have had a periodic physical examination in the past year to stand up. It is the mother who is learning that in child health "an ounce of prevention is worth a pound of cure",

and it is to her in the last analysis we must go for the sake of her children's health, and urge her to work shoulder to shoulder with us in making school health work more and more effective in the state of New Jersey.

CONTRIBUTION OF PHYSICAL EDUCATION TO SCHOOL HEALTH PROGRAM

FREDERICK W. MARONEY, M.D.,

Director of Health Education, Public Schools,
Atlantic City, N. J.

There is much confusion in the minds of educators as to just what "health education" means, so I am taking the liberty to explain from my point of view. I believe that health education consists of health service, health instruction and health activities. Under health service, I would include medical and physical examinations, the follow-up work by nurse and social worker, dental examinations and follow-up work, the oculist service in the schools, control of communicable diseases and quarantine, control of the school plant in light, heat, ventilation and care of the lavatories. Under health instruction, I would include the teaching of hygiene, safety and accident prevention in the lower grades, of anatomy, physiology and hygiene in the Junior High School grades, and of community hygiene, first-aid and home nursing in the Senior High School. Health activities would include all that we have agreed upon in physical education—games, athletics, gymnastics, skating, swimming, arts of self-defense, emphasizing sports that will carry over into after life such as tennis, golf, bowling and hiking.

REASONS FOR PHYSICAL EDUCATION AND RECREATION

(1) All of us remember that 30-40% of the flower of our young manhood was rejected in the World War drafts because of physical defects. The thinking people of the country were astonished and shocked, and

many resolutions were made which aimed to improve the physical quality of our young people. It is apparent that a physically fit nation is better prepared to meet any emergency, either from within or without, and therefore it is fitting that we should leave no stone unturned to provide physical, recreational and health facilities for the children of today, the men and women of tomorrow. States of the union vied with each other in passing mandatory or permissive legislation for physical education in the schools. This was done because of the demand for efficiency, preparedness, patriotism and better citizenship.

(2) Dr. Thomas Wood, of Columbia University, has from time to time published statistics upon the health of school children. He has stated that more than 70% of the school children have physical defects that affect their mental as well as their physical development.

(3) Life insurance companies have advised us from time to time that although life expectancy has been markedly increased and that infant mortality has been cut down, nevertheless the death rate has increased in middle life; especially between the years of 45-60, the executive years when men and women should be giving their best.

(4) Recent surveys have shown that the rural school children have from 1 to 20% more physical defects than city school children. The rural child gets a one-sided physical development. He lacks the medical care and health service facilities that the city child is offered.

(5) We are told that we have more than 30,000,000 workers in the United States and that they average a loss of 9 working days per year. Much of this loss could be cut down if the workers themselves realized the importance of health regulations and the quarantine which should be established and controlled during epidemics. It is estimated that 30% of all school children are retarded on account of sickness and physical disability.

(6) It has been estimated that the United States, from public and private funds, spent \$1,000,000,000 for the sport and recreational life of its soldiers. No one questioned the

importance of this work. The people gave gladly and freely because of their interest and belief in the boys who were giving their all to their country. This expense would not have been so great had physical condition received its due before the war examinations brought out this need.

I would like to submit the following list of specific objectives for a rational program of Physical Education:

(1) To inculcate health habits; (2) to develop the body harmoniously through a general systematic exercise procedure; (3) to correct and remedy physical defects; (4) to give a fund of exercise material for use in after-school days; (5) to give opportunities for the development and guidance of play spirit; (6) to provide situations which will arouse and increase the psychical qualities of courage, fair play, self-sacrifice, and loyalty; (7) to give positive instruction in citizenship through leadership and response to commands.

PROGRAM FOR BOYS AND GIRLS

There should be 1 period of physical education per day for each pupil in the time allotment. It is all nonsense to talk about the value of physical education and health in the school program, and then wedge in the physical education period without regard for anything but schedule-making. If the educators are really serious in their belief that health comes first, and if they are sincere in saying that physical education is important in the life of the child, they should make their schedules around the physical education program. In other words, after they see to it that each child is assigned to the activity classes in play-room, gymnasium or athletic field that will best serve his development, then the rest of the schedule should be completed. It is not enough to organize a program of games and athletics and then call the same free play and let the children play as they will. Fundamental game skills should be taught and the achievement goal of artistic performance should ever be kept before the pupils and the teachers. Tests and measurements should be given from time to time to determine prog-

ress, for self-satisfaction, to reach achievement goals, or to determine whether or not change to another group would be beneficial. The tests should be made clear to the pupils so that they may respond to teaching directions in order to achieve the best results.

The physical education and recreational program should be based upon individual needs as determined by a thorough medical and physical examination. The examinations should be supplemented by physical capacity tests, tests that will determine the type of work and the extent of pupil participation. The program should be outlined so as to arouse interest and enthusiasm and a desire for self-improvement. It should provide for the physical-plus pupil, that is, the one whose body needs particularly strong, vigorous, energetic exercise. A special program should be prepared for the so-called normal child, bearing in mind at all times that each child is an individual and should be treated as such. There should be a special or modified program for children with physical defects or disabilities such as weak hearts, general metabolic deficiencies, recovery from operations, etc. Sometimes the best type of program for a child is a rest period. The teacher should check up from time to time on the effects that exercise has upon the child's vitality, his scholarship and his interest in school affairs, with a view to changing his program of activities, even, perhaps, substituting a rest period.

The Board of Education should supply a well trained corps of teachers. These teachers should be recognized members of the faculty. They should have tenure of office and their salaries should be paid in full by the Board of Education. Equipment should be paid for and provided by the Board of Education in the same way that all laboratory supplies are paid for and supplied. Showers, towels and, when possible, swimming pools should be established and maintained by the Board of Education. (The pupils should be arranged in classes according to their age, grade and their special aptitude.)

The people of the country are apt to think of outstanding performances of our athletes

in the Olympic Games or other championship victories as criteria in themselves of physical well-being in the country and in the nation. We know from past experiences that such is not the case and no program is sound and no school system is thoroughly organized until such time as every child, the strong and the weak, is given a program suited to its individual needs. I believe that the essence of competition is to win, but I believe that the schedules of competition, the length of periods, should be outlined for the physical well-being and health of the pupil taking part rather than for the pride of the High School or the prestige of the community. Athletes should be organized, first, for the pupil, second, for the so-called school spirit and third, for the community interest. I would stress the importance of interclass and intramural competition rather than interschool competition. It does not seem to me either wise or sane to have pupils engage in a schedule that materially affects their school work. Overnight trips should be discouraged and tournaments should be studied from the effect upon the pupils' health rather than upon any other consideration. I believe that girls should have interclass and intramural competition.

The following professional objectives, adopted by the American Physical Education Association, are broad in concept, fundamental in application and are educationally sound. Teachers will, perhaps, want to change, modify, omit some and add others, but at least these professional objectives provide a series of goals to which we may aspire:

- (1) A medical examination for every school child.
- (2) Health habits that endure.
- (3) A class period in physical education each day for each pupil.
- (4) A gymnasium and playground for every school.
- (5) The teacher fully trained and accredited.
- (6) The coach a member of the faculty.
- (7) A graded and scientific curriculum.
- (8) Standardized physical achievement tests.

(9) Positive academic credit for physical education work.

(10) Education for leisure.

(11) An intramural program for after-school hours.

(12) A varsity program that stresses sportmanship and ethical conduct.

(13) Opportunities for scouting and camp-craft.

(14) Equipped and supervised summer playgrounds.

(15) Provisions for wholesome adult recreation.

Physical education is not a panacea nor a cure-all. It will not take the place nor the interest of important health service and health instruction. It will not in itself eradicate the ills of our modern civilization. It will not make a scholar out of a boy who does not care to learn nor a gentleman out of a cheat or a ne'er-do-well, but it will provide situations that will bring out the qualities of truth, sportmanship and leadership which may be latent in the youth. It will make him strong, vigorous, alert, skillful, enthusiastic and co-operative in so far as he is interested and willing to try and is determined to succeed. The leaders in the Character Education Movement have stressed good breeding, stimulated instruction and an activity program that will tend to fix the qualities of truth, honesty and fair play, so that as the situations that call for these character reactions arise in every day life the youth will meet them confidently and courageously.

THE JEW IN MEDICINE FROM BIBLICAL TO MODERN TIMES

MAX DANZIS, M.D.,

(Read before the Men's Club of Temple B'nai Abraham, Newark, N. J.)

Newark, N. J.

Study of the Jewish contribution to medicine, or rather of the Jew's participation in the development of that science, must begin with some reference to those chapters of the Bible where distinct and concise rules are laid down regarding prevention of the spread

of certain diseases. We have no evidence to prove that the Jews took any active part in the Egyptian practice of medicine, nor is there any allusion anywhere that the Jews took some of that knowledge along with them when they left Egypt. The early Egyptians were familiar with many drugs, such as opium, strychnin and squills; and there is preserved evidence in the form of prescriptions to prove that the skill of the apothecary was fairly well developed. They were familiar with some surgical operations—such as the removal of bladder stones, and amputations—as shown by pictures found, which would indicate that medicine did make some progress in Egypt as early as the seventeenth century B. C. (“Joseph commanded his servants the physicians to embalm his father’s body.”)

Early development of medicine among the Jews was not influenced by the Egyptians, at least not to any appreciable extent. There is no mention in the Bible of the curative value of drugs, while the remedies employed by the Egyptians were numerous. The real early Jewish contribution to medicine is found in the Book of Leviticus, where sound and rational laws are laid down governing the prevention of certain diseases, and isolation and disinfection are very thoroughly discussed. One gathers from a careful reading of these laws, that they aimed very strongly toward preservation of health and life. The management of disease seems to have been left entirely in the hands of the priests. It consisted mostly of prayer and sacrifices; a condition similar to what prevailed among the Greeks, which I shall show later and which cannot be truly classed with the art of medicine. To quote from Leviticus: “When a man shall have in the skin of his flesh a rising or a scab or a bright spot, and it become in the skin of his flesh the plague of leprosy, then he shall be brought unto Aaron the priest or unto one of his sons the priests and the priest shall look on the plague on the skin, etc.” Description of the appearance of plague is given with the minutest detail, and rules are laid down as to the period of isolation and methods of cleansing, (disinfection in the modern sense) before the isolated per-

son may be returned to camp. There is no reference to any specific healers; no remedies are suggested. Much stress is laid on the *clean* and *unclean*. The Bible is very emphatic in its commands concerning contact with carcasses of unclean animals, that is, those considered unfit for consumption. Any one who came in contact with such a carcass remained unclean: “And if any beast of which ye may eat die, he that toucheth the carcass thereof shall be unclean until the even.”

The cleansing process was not altogether a preventive physical measure, but also a sort of religious propitiatory measure, as evidenced by the following: After the patient has undergone the process of shaving and cleansing his body, and after having thoroughly washed his clothes, he must then appear before the priest on the eighth day with 2 lambs, symbolic of a guilt offering; “And the priest shall make atonement for him and he shall be clean”.

Evidently, leprosy was then considered a punishment for man’s transgression. Diseases in general were looked upon as visitations from Heaven to punish mankind for his misdeeds: “If thou wilt diligently hearken unto the Lord thy God, I will put none of the diseases upon thee. If thou wilt not hearken unto me, I will appoint over thee terror, consumption, and the burning ague that shall consume the eyes;” etc. (Leviticus)

Even in Talmudic days these ideas still prevailed. If a man does not devoutly bow during the repetition of his daily prayer which commences—“We reverently acknowledge”—his spine after 7 years becomes a serpent. “Sin is a cause of disease. Dropsy is a sign of sin. Jaundice is a sign of hatred without cause and quinsy is a sign of slander.” These primitive notions are closely akin to the evil spirit idea prevalent among other primitive races. Propitiatory measures in the form of burnt offerings were considered essential for the absolute care and cleanliness of the afflicted.

The Greeks believed that every sickness was due to the anger of some offended God, and especially was this true in the case of epi-

demics and plagues. They erected many temples on mountain sides in honor of the Greek God Aesculapius. These gradually became very popular sanatoriums presided over by the priests—not physicians. These physician-priests received their patients and stirred their imagination by recounting to them the wonderful healing power of Aesculapius, the remedies employed, and the marvelous successes obtained. Patients were obliged to go through certain prayers and offer up sacrifices prescribed by the priest before the image of their God. They then went through a purification process by bathing in some mineral spring, being massaged, and put to sleep in a sanctuary provided for that purpose. At night the priest would present himself before the patient during his waking moment in the guise of a God and administer the necessary medication which consisted of blood-letting, catharsis, or emetics. Thank-offerings were given by those whose treatment proved successful, usually in the form of a model of the diseased part made of wax or gold, and votive tablets giving the history of the case were suspended in the Temple, which served as clinical records giving a description of the disease and its cure. This form of early Greek medicine assumed an entirely religious aspect, governed largely by idol-worship, full of subterfuge and superstitious belief.

The laws of Leviticus excel in many respects. The diseased person was isolated as soon as the affliction was detected. Contact with anyone else was prevented. Careful inspection by a competent priest was absolutely essential before the patient was allowed to return to camp: "A priest blind in one eye should not be the judge of plague."—Negaim, Chapter 2. To the priest was evidently assigned the task of supervising all cases of contagious diseases; they were the sanitary corps of the nation. The true healing art was not developed among the Jews during the early Biblical days. References to cures are found in the Books of the Prophets, such as restoration of the life of a child by Elias, (Kings, page 16) and cure of the Shumanite by Elisha (Kings 3), but these are probably allegoric in concept and have no place in the study of medicine.

Examples of empiric medicine, where natural means were resorted to in the treatment of disease, are those where Isaiah was supposed to have cured King Hexekiah of some glandular infection by the application of certain plasters, and where Ezekiel refers to the treatment of fractures (Ezek. 30:21); he speaks of binding up the fracture with a roller for the purpose of healing.

Early Biblical medicine may be looked upon as preventive medicine, somewhat primitive when judged by modern scientific standards, but nevertheless very sound in many respects. As an example, let us take the rules governing management of the disease known as the "issue"—probably a form of venereal disease: "Every bed wherein he lieth that hath the issue be unclean and everything wherein he sitteth shall be unclean; and whosoever toucheth his bed shall wash his clothes and bathe himself in water and be unclean until the even." Anyone who came in contact with unclean things was supposed to have become unclean and to transmit his uncleanness to other objects. Holiness cannot be transmitted from object to object but uncleanness is transmissible. Prophet Haggai asked the priests to decide this question: If one bear hallowed flesh in the skirt of his garment and with the skirt do touch bread or pottage of wine, or oil or any food, shall that become holy? The answer is "no". If one made unclean by being in contact with a dead body touch any of these things, shall it become unclean? The answer is "yes".

During post-biblical day the actual practice of medicine was beginning to receive recognition and physicians were held in high esteem. They were looked upon as God's messengers. The people were told to "honor a physician with the honor due unto him for the uses which ye may have of him". The Court of Justice employed a physician whose testimony was decisive in certain criminal matters, particularly in cases of corporal punishment. It was considered hazardous to live in a city that had no physician.

The political and social position of the Jews during and following the so-called period of the prophets was not propitious for the development of medicine as a distinct profes-

sion. Medicine of the Talmudic days was not entirely in the hands of professional healers. Scholars of that period communicated their knowledge orally, and adhered very strictly to the traditional. They were mostly concerned with interpretation of the moral law and ethical concepts. Things earthly did not seem to appeal to them. Real scientific knowledge was still in its infancy and its advancement was not encouraged. Rabbis, men of learning given to moral and judicial meditation, were also interested in medicine, but not as professional healers. It was simply part of their general culture. The reverse was also the case; those who devoted themselves to the healing art were also interested in other subjects, such as religion, philosophy and history. An analogous condition existed during the renaissance period of medicine. Physicians of those days were very versatile men, giving some of their time to the study of philosophy, theology, literature, etc. Some of the foremost poets and literary men of the eighteenth century studied medicine; among whom may be mentioned Lessing, Goldsmith, and Shiller, who were graduates in medicine, and Haller and Zimmerman who practiced it.

Talmudic medicine was based partly upon tradition, partly upon knowledge of dissection, and possibly upon the teachings of Galen, a Greek physician who practiced in Rome until the end of the second century A.D. Galen derived his knowledge of anatomy from the dissection of apes and other animals, but not the human body. Rab, a contemporary of Galen, made an intensive study of anatomy, and Chanina Ben Chanina is credited with inserting artificial teeth during the second century. Rabbi Isshmail, a physician, at the close of the first century, procured the body of a harlot for dissection; a practice which was forbidden by court decrees until the seventeenth century.

That the Talmudist had considerable and definite knowledge of human anatomy is shown by frequent references to certain anatomic organs. They were familiar with the origin of the spinal cord and great foramen; described the esophagus, or gullet, the lungs and their covering the pleura; the ribs, breast

bones and tendons are mentioned; larynx, wind-pipe, and their structure are discussed; the food-tract and most of the organs contained in the abdomen are described and their relations to each other given; the number of bones composing the human skeleton is given, though somewhat erroneously—252 instead of 232. They had some idea of physiology; knew that life cannot be sustained upon expired air, and the functions of the salivary glands, the stomach, and the processes of digestion were vaguely known to them.

Samuel was a skilful accoucheur and oculist, practicing in Palestine and Mesopotamia, and it was he who relieved Jehudi Hanasi, the compiler of the mishna, of an eye affliction.

The poisonous effects of certain insects and animals were known and their destruction was urged even on the Sabbath day. "The serpent of the land of Israel, the scorpion and mad dog should be killed anywhere and everywhere." (Shabbath Fol. 121.) A very good description of rabies is given: "The dog's mouth gapes wide; it drops its saliva; its tail is curled between its legs and it slinks along the side of the road."

The Rabbis had some knowledge of midwifery or obstetrics. The position of the unborn child during development and growth in the mother's womb is described, though somewhat incorrectly. The causes of onset of labor and the duration of pregnancy are also discussed. (271-279 days)—Nidah Fol. 31. Embryology, or fetal development, has also received some consideration from them. An attempt is made to define hereditary characteristics, though in a very primitive fashion: The father's part consists of all that is white in the off-spring; the bones, nails, brain, etc. The mother is supposed to contribute the skin, flesh, hair, the black of the eye. The breath of life, the soul, and all the special senses, such as sight, hearing, knowledge, understanding, and wisdom are attributed to the omnipotent power of God. (Niddah Fol. 31.)

The Talmud, as well as the Old Testament, has many interesting and valuable eugenic lessons. Talmudic sages were early to recognize the effect of a clean, moral life upon preservation of the race. Sex, hygiene, and

eugenics, almost modern in its sense, received careful consideration in the Talmud. Marriage into epileptic and leprous families was forbidden. Imbeciles were not permitted to marry. The value of heredity, particularly in its relation to marriage, was stressed: "Let a man sell all he has and marry the daughter of a learned man. If he cannot find the daughter of a learned man, let him take the daughter of a great man of the time. If he cannot find the daughter of a great man of the time, let him marry the daughter of the head of a congregation. If he cannot find the daughter of the head of a congregation, let him marry the daughter of an almoner. But let him not marry the daughter of the unlearned, for they are an abomination and their wives are vermin; and of their daughters it is said: Cursed is he that lieth with a beast." * * * * "A girl with a good pedigree, a daughter of a scholar who leads a life in accordance with the regulations of the Torah, even if she be poor and an orphan, is worthy to become the wife of a king." * * * "If one sees a girl that has all the necessary qualities, he should not delay the engagement, because she might be snatched up by another."

Physicians of those days were apparently well compensated for service. There was a current saying: "The physician who takes nothing is worth nothing." They had some vague knowledge of the use of drugs and had a fair understanding of diet in health. They laid much stress upon proper personal hygiene, giving definite instruction to wash the hands before meals. Some of these measures assumed a religious significance. Their hygienic intent and value were apparently misunderstood and ritualism took the place of real cleanliness: "It were better to cut the hands off than to touch the eye or the nose or the mouth without having first washed them." Unwashed hands may cause blindness, deafness, foulness of breath, etc. (Shabbath Fol. 109, Col. 1): "They who neglect to wash their hands are judged worthy of death", said Rabbi Akiva, and it is related that he refused to take food while imprisoned unless sufficient water was provided to wash his hands.

They had some experience with ptomaine poisoning. Small salt fish will cause death if partaken after 7, 17, or 27 days. (Mystical number 7.) When properly cooked there is no harm. (Berachoth, Fol. 44, Col. 2.) Talmudic medicine is not free from the many superstitious traits prevailing in those days. There is much of the mystic and cabalistic in their medical advice. The evil spirit, the enemy of man, is very often mentioned. Witchcraft is strongly condemned and evidently feared by the Talmudists; and they bemoan the fact that the daughters of Israel burn incense for sorcery. One must wash his hands immediately upon waking because: "The evil spirit which rests upon the hands at night is very strict. He will not depart unless water is poured upon the hands 3 times."

Their conception of a pestilence was of a superstitious kind: No one should walk in the middle of the road during its existence, for the angel of death would be sure to cross him. The cause of rabies, not being understood, is attributed to evil spirits and witches by some Rabbis. Even the Talmudic sages who seem to have made earnest efforts in the search of truth were not free from the most naive beliefs in the efficacy of charms and amulets in the treatment of disease: "A grasshopper's egg carried on a Sabbath is a charm against ear-ache." * * * * "The tooth of a living fox promotes sleep." * * * * "The nail of a crucified person is a remedy for inflammation and swelling." * * * * "A ring made of certain metal and carried on a Sabbath day may be applied as remedy for sore eyes." (Sanhedrin Fol. 101, Col. 1.)

Some of these notions may have been acquired from the Essenes, a sect that led a life of self-abnegation and assumed the treatment of disease by mystic practices, softly spoken incantations, and the use of certain roots and stones, to which they attributed magical power.

Many references to the treatment of surgical diseases are found in the Talmud. Venesection was very frequently practiced in those days. The therapeutic value of leeches and cupping is mentioned. Fractures, amputations and trephining are discussed. For all

major operations a sleeping potion was administered. Gross pathologic studies of the lungs were made. The general appearance as to color, consistency, presence of cavities, and pleural adhesions were minutely described. Congenital anomalies and various deformities are described. Perforations of various organs and the probable results are discussed in detail, and observations are made on familial hemorrhagic tendencies. A detailed discussion of gall-bladder abnormalities in animals and their fitness for food is given. If the gall-bladder was absent, the animal was unfit for food (trefah). When 2 gall-bladders were found, the animal was also considered trefah. An animal is not considered unfit for food if absence of gall-bladder is characteristic of the entire species. Most of these elementary, anatomic and pathologic discussions related to animals and their fitness for human consumption. The Hebrew dietary laws are mostly the result of these early attempts at hygienic dietary measures which were subsequently codified by Joseph Caro, and accepted by all orthodox Jews as the most authoritative dietary document.

There were many Jewish physicians of considerable knowledge and skill during the third and fourth centuries, but after completion of the Talmud in the fifth century there followed a period in which all sciences, medicine included, suffered a decided decline. This was due to many revolutions and social upheavals of a religious and political nature which shook the foundations of all the oriental seats of learning.

Degeneration and retrogression set in for the next 2 centuries, and the cabala assumed a mighty power. Treatment of disease consisted of all sorts of superstitious methods, and only those whose knowledge of the cabala was supposed to have brought them into communication with the superior worlds were considered competent healers. Piety and contemplation were the essential qualities making one worthy of holding communion with the celestial powers. All sorts of religious strifes and persecutions during the fifth and sixth centuries were instrumental in deterring the more liberal and progressive minds from

participating in any medical or scientific inquiry. Fortunately, a great deal of Greek learning and some Greek medicine was introduced into Mesopotamia where it was preserved in the great Alexandrian library. This Mesopotamian medicine was then introduced into Syria, which became the stepping stone between oriental, Greco-Alexandrian, and medieval medicine.

The early Mohammedans were bent on converting and conquering all the African and Asiatic tribes. Inspired by a religious fervor, and blinded by prejudice and bigotry, they were bent on destroying everything of the mind. Their Oriental ideas of the cause of disease and their belief that it is sinful to touch the bodies of the dead—human or animal—impeded the progress of anatomic and surgical knowledge. The Mohammedans acquired some knowledge of medicine from the Nestorians (Nestorius 428), a sect ostracized religiously and socially, who took up and developed somewhat the practice of medicine. They founded a medical school in Persia and it is probable that the wisdom and knowledge of the early Mohammedans was derived from that school. Later on, the Califs established medical schools which were well equipped and furnished with excellent teachers. They encouraged the collection and copying of Greek manuscripts, and translated the works of Hippocrates and Galen and other Greek classics into arabic. Jewish physicians played a very important part in this Mohammedan-Jewish period, for many of the students and teachers in the schools of Bagdad and Kufah were Jews. Messer Jawait translated a Syrian work into Arabic, dealing with plants and food; another translated into Arabic the work of the great Greek astronomer Ptolemy.

This so-called Golden Age of Arabian medicine lasted about 200 years, during which time the Jews contributed much to medical knowledge by translating the early Greek and Oriental medical works into Arabic and Hebrew; serving as court physicians to several of the Califs, to them was assigned the difficult task of translating the works of foreign languages into Arabic. Jews began to eman-

cipate themselves at that time from the influence of their narrow traditions, and physicians took the lead in this mental emancipation.

Through the Nestorians and the Jews, the Arabs became acquainted with the medical science of Greece and Alexander, but added to this was a knowledge of a more sinister kind derived from the Persians and Chaldeans—the knowledge of astrology and magic, with the practice of incantation, and the amulets, talismen, and charms. These mystical interpretations were received with avidity by the Arabians from their Nestorian and Jewish medical instructors, but as science advanced, this idea of the supernatural was gradually dispelled. The efficacy of charms, or repeating of prayers over the mortar in which medicines were being compounded, was beginning to be denied. The practice of worshipping the relics of martyrs, the belief in witchcraft and all other superstitious ideas, were being attacked, and at the close of the ninth century the cultivation of science received a great impetus.

The Caliphs of the East were friends of learning. The school of Bagdad, founded by Harun-el-Raschid in the latter part of the eighth century, was one of the most flourishing institutions of that day. Among its students and teachers are found many illustrious Jewish names: Isaac Ben Emran, a court physician, described the symptomatology of poisons; Joshua Ben Nun was a physician of high repute and a voluminous translator of Greek medical works into Arabic; Isaac Ben Solomon wrote a treatise on dietetics which was translated into Latin, and became deservedly popular in Europe. Books of all languages reached the Bagdad library, and many new schools were organized. Jewish physicians of that day, acting under the power and patronage of the Saracens, wrote many of their treatises on medicine and philosophy in the Arabic language, which were later translated into Hebrew and then into Latin. There were many Jewish physicians in Egypt celebrated for their learning and skill, some of whom became court physicians, and most of whom combined with their professional

skill a profound knowledge of theology, mathematics, astronomy, philosophy and law.

Arabic and Jewish culture followed the conquering armies across the Straits of Gibraltar to Italy, Sicily and Spain. Cordova, Toledo, Seville and Granada attained proud positions as seats of learning. Jewish scholars entered with great zeal into this promotion of knowledge, and European intelligence was greatly helped in its development. Medicine was advanced, not only through the translating activity of the Jewish physicians but also by their many practical contributions. It is through this Saracen-Jewish influence that the Western or Cordovan Caliphate attained a prominent place in medicine. Its 2 outstanding Jewish physicians were Moses Maimonides and Avenzoar, the latter of whom Garrison, in his *History of Medicine*, considers as the greatest Jewish physician. His book on "Rectification of Health" was translated into Latin, and he was one of the few daring medical men of that period to take issue with the then universally accepted teachings of Galen. The Rabbi Moses Ben Maimon, called Maimonides, was the greatest Jewish physician of his age, and possibly greater than any of his contemporary Arab colleagues. He brought into medicine that same religious zeal and sincerity of purpose which impelled him to write his other philosophic work—"More Nevuchim". Until his own day, religions looked with a certain amount of distrust at the healing art. Even during his lifetime, and for several centuries later, it was considered lack of faith to rely on herbs and potions instead of resorting to prayer and divine mercy. The enemies of science pointed to certain passages in the Talmud opposing the practice of medicine. He refuted their arguments very effectively, quoting a passage from the Book of Sanhedrin that reads: "Each town has need of a surgeon, a doctor, and a bath-keeper." He stressed the religious importance of the art of medicine, pointing out that since man's higher purpose should be a complete spiritual development, and since the body is the companion of the soul, it is important that it should be well cared for in order to obtain its

harmonious goal. He fought the use of charms and amulets, and the practice of resorting to holy writ, which had become common with the rise of the Cabala: The Torah should be used for the cure of the soul, and should not be applied to cure bodily ills." There was a distinct religious fervor in his medical philosophy. He composed a daily prayer which he was in the habit of reciting before going to see his patients: "Preserve, O Lord, the strength of my body and of my soul, that I may ever be prepared cheerfully to aid and to assist the rich and the poor and him who is my friend. In the afflicted, let me only ever see the man."

In a letter written to a friend, he says that the art of medicine is long and difficult for those who want to carry out their duties conscientiously. He was not an advocate of polypharmacy. He believed that the physician's task is to see that Nature does her own healing. He was court physician to Saladin (1135-1204), and his treatise on personal hygiene, which was written for that Sultan's private use, contains some admirable precepts on diet and regimen. He also wrote a tract on poisons which was later translated into German and French. Here are some of his dietary rules:

(1) Eat and drink only when you are hungry, and leave a quarter of your appetite unsatisfied.

(2) Avoid canned fish, meat, and cheese, and anything that might have taken on a bad smell.

(3) Eight hours of sleep are sufficient, and it is best to rise at dawn.

(4) Do not go to bed right after your meal.

(5) Muscular exercise is essential to bodily welfare.

(6) Food should be selected for its sustenance value, and not by your likes and dislikes.

(7) Music, beautiful pictures, and garden walks have a good effect on melancholy people.

His book "Sefer Refuot" from which most of the data concerning his medical theories are drawn is not altogether an original com-

position. Some of the chapters are admitted by him to have been drawn from Galen and Hippocrates. Scattered throughout the book are certain addenda to some paragraphs entitled *Amar Moshe*—"Moses speaks". These are his original comments on Galen, showing his own interpretations and corrections on Galenic medicine. He takes his master Galen to task for some adverse observation which he allowed himself to make on the Mosaic law. He speaks of pulsating and non-pulsating vessels (veins and arteries); describes exactly the spinal column; and distinguishes between voluntary and involuntary muscles; had some definite understanding of the relationship between the senses of smell and taste; comments on the movement of the diaphragm with the breathing motion; distinguishes between the 3 forms of fever—daily, tertiary and quartenary; and he made an attempt to explain passage of the blood through the abdominal organs to the right heart. His philosophic theories and theologic beliefs created much antagonism and bitter dissension among the contemporary Jewish men of thought, but during the course of years he received the recognition due him as one of Jewry's great intellectual lights: "The great Sage" * * * "the glory of the West" * * * "the light of the East" * * * and "Second only to Moses".

Among other Jewish physicians of prominence in the service of Saladin, we may mention Nathan Israeli, who was a prolific writer and translator of medical works. In the eleventh century we find the name of Ebin Ezra, who was a master of many languages and author of a commentary on the Bible. He was an extensive traveler, took some interest in science, and had a definite idea about medicine, but was not a regular practitioner of the healing art. Rabbi Solomon Ben Isaac, known as Rashi, the prince of commentators, whose commentary on the Old Testament and some portions of the Talmud is followed by all biblical and talmudic students, was equally at home in medical instruction as in writing his commentaries.

Arabic medicine was introduced into the Western world about the middle of the eleventh century. Jewish scholars, acting under

the patronage of Christian bishops, were again active in translating from Arabic the medical works of that day. The School of Salerno, Italy, (ninth to twelfth century) lifted medicine from its so-called monastic state (belief in miracles), to a much higher level. This was the first independent medical school of that time, and its medical teaching "came upon the dreary stagnation of the early Middle Ages with something of the invigorating freshness of the sea" (Garrison). With establishment of this school, European medicine began to make some progress. Study of anatomy at that time was based on the dissection of swine. Dissection of human beings for teaching purposes was hampered both by Christians and Jews through the theologic idea of the sanctity of the human body, and belief in the resurrection of the dead. It is curious that one of the Jewish instructors in that school, named Copho, wrote a primer on dissection of the pig which was later reprinted in another anatomic manual in the sixteenth century, and which made a distinct contribution to the study of anatomy in this so-called Salernian period of medicine.

In the eleventh century a medical faculty also was established in the school of Montpellier (France). This medical school owes its foundation largely to Jewish teachers who were educated in some of the Moorish schools of Spain and were imbued with the intellectual independence and the philosophy of Averroes. It was governed by Jehuda in conjunction with the regent Nicholas. The pharmacopeia was translated into Hebrew by one of the professors of that school named Jacob Ha Katan and many of Maimonides' religious, philosophic and medical works were translated from Arabic into Hebrew by a distinguished Jewish physician and scholar of that school.

The study of medicine was seriously undertaken by the school of the Rabbis in the eleventh century. Some of them became the physicians of the princes and prelates. Popes employed them, even contrary to the declaration of the Cannons that the Jew not be permitted to treat a Christian. The Roman Pontiffs were liberal men of the world and did not hesitate to employ them. Pope Boniface

said that: "In the practice of their profession, they were courteous and benevolent, ever ready to keep the poor and the needy without pay, and they were equipped with ripe experience." Rabbi Isaac was medical adviser to Boniface XII. Bishops, princes, kings and popes had each in private his Hebrew doctor. It was definitely understood between them that he was a contraband luxury, prohibited by law in many countries, used secretly by the privileged few, and abused openly by the multitude.

There were a number of active Jewish physicians in Portugal and Sicily. Very few were found in Paris. The influence of the Jewish physician was negligible in Germany. Many Jews migrated into that country from Spain and France, but found the universities closed to them. However, there were some Jewish physicians practicing at that time as is shown by the fact that a decree was issued in the year 1267, forbidding Jews to treat Christian patients. During the ravages of the plague in the fourteenth century in Germany, Jewish physicians were accused of poisoning the wells and one Jewish surgeon was executed for that supposed crime. Andrew D. White, in his monumental work "The Conflict Between Theology and Science" describes a wholesale massacre of Jews who were accused of the same crime; 2000 lives were lost during that time.

Jewish medical activity was not destined to go on unmolested for any length of time. Jews were welcomed for their usefulness as translators and teachers during establishment of the several medical schools and were tolerated as practitioners during the stages of Arabian migration, their conquests, and readjustment, but as soon as their influence began to make a strong impression, steps were immediately taken to curtail their activity. In Bagdad, Salerno and Montpellier laws were promulgated forbidding Jews to teach or practice medicine. In 1293, a law was passed punishing any Christian who accepted treatment from a Jewish physician. The Jews were expelled from Montpellier in the beginning of the fourteenth century, and a wholesale persecution of the Jewish physicians was

undertaken in Germany in the beginning of the sixteenth century. With expulsion of Jews from Spain, the activities of the Judeo-Spanish school of medicine ceased entirely and for the next 200 years we do not find any great Jewish physicians. A few are found in Italy in the fifteenth and sixteenth centuries, some of whom occupied important positions as general practitioners with special privileges. Among them we find a number of Spanish emigres, members of the noblest Jewish families who settled in Italy. Some emigrated to Turkey after the Mohammedans captured Constantinople, where they were permitted to practice during the sixteenth and seventeenth centuries. There were very few in the Netherlands, and still less in England. Most of them, however, were general practitioners and not path-finders in medicine.

The position of the Jew in the so-called Diaspora was not an enviable one, even during the early Middle Ages. Discriminating laws were promulgated against him in every land where he found shelter. As I have shown before, Jewish medical activities were curtailed in every country as soon as their influence was beginning to be felt. This condition was aggravated to its maximum during the latter part of the Middle Ages, or what one might call the Darkest Age. Persecuted and driven from everywhere to nowhere, always the butt of the jeers and sneers of a cruel and ignorant mob, deprived of every vestige of human rights, the Jew was frequently forced to take shelter in any place where he was permitted to enter even as a temporary abode. His tragic experience taught him that he must always be ready, with pack on his back and staff in hand, to move on whenever an enraged mob threatened him with destruction or when an edict of expulsion was promulgated by the capricious and merciless rulers. He was compelled to be ready at a moment's notice to resume his weary wandering amid prejudice, bigotry and inhuman hatred.

A period of reaction and tragedy ensued. A fierce and tragic cloud appeared over the intellectual horizon of Europe, spreading wholesale intolerance, bigotry and persecution.

Every advanced human thought was banished, every liberal idea was crushed at its birth, and anyone who dared to advocate it openly put liberty, limb and life in jeopardy. It was the period of the torture chamber, the wheel, the rack, and the auto-da-fe. It was the age of fierce and bitter fanaticism, the days of the Torquemadoes, when terrific cruelties were inflicted on man-kind by a multitude of deluded zealots, imbued with an insane religious fervor. The life of the Jew during that time was a continuous bitter struggle for mere existence. Shut up in the ghettos under the most sordid conditions, he was in constant fear of a sudden outburst of wrath from a prejudiced and superstitious mob, incited by a bigoted ruling class. He was humiliated and discriminated against in every educational or cultural undertaking. All educational opportunities were denied to him. He was held up to ridicule by a certain prescribed form of garment, and singled out as one to be despised by man. Is it any wonder that in the Roster of the great medical men of that age his name does not appear?

It is only at the end of the eighteenth century that some ray of hope began to penetrate into the ghettos. Their deliverance came with the French Revolution, when a momentous change took place in the status of Jewish physicians. They were admitted to citizenship in every country of Western Europe, and were permitted to study at most of the universities and practice their profession. From that time on the Jewish physician began to make progress in the study of medicine, and gradually assumed very important positions as practitioners, teachers and research workers.

Among the path-finders in medicine during the nineteenth century in Germany, we find the names of many Jewish physicians whose contribution to medical science was of a momentous significance. They were not mere medical practitioners. They belong to that noble group of souls who subordinate every selfish interest to the advancement of science. Traube became one of the leading German specialists in experimental psychology, and also one of the leading clinicians and teachers.

He contributed several essays on the value of drugs, and on diseases of the heart and lungs. Julius Cohnheim was a very famous pathologist and a pioneer in the theory of inflammation which is now universally accepted. Paul Ehrlich is one of the most picturesque figures in modern medicine. He was a tireless worker, never acknowledging defeat. He carried on his famous experiments in study of the blood, and was considered the foremost authority on serology in the world. Another outstanding man in serology is Von Wassermann of the famous Wassermann test. Boas was one of the foremost authorities in the world on gastro-intestinal diseases. He contributed many original essays on the subject and discovered a bacillus which bears his name. Among the surgeons, we find the names of Israel, whose skill was sought by the rich and poor alike; Zuckerkandel, famous surgeon and anatomist; Hirschberg, the ophthalmologist; and a great many other medical men of eminence whose names time and space do not permit me to enumerate.

In Italy the 2 outstanding physicians are Cesare Lombroso, who was a great alienist and criminologist; and Salvatore Ottolenghi, who contributed much to the study of forensic medicine.

The school of Vienna produced many great Jewish physicians. Sigmund Freud is the most outstanding figure in the study of psychology and founder of the new school of psychoanalysis. Hajek and Von Neumann, famous nose and throat specialists; Politzer, the world's most prominent ear specialist; and Schick, of the famous Schick test, now almost universally adopted.

In Paris, we find Besredka of the Pasteur Institute; and Marmorek, who is an authority on tuberculosis.

One really marvels at the rapid strides the Jews of Western Europe have made in medicine within a comparatively short space of time. They not only kept pace with its rapid advance, but also contributed in a large measure a number of real medical pioneers whose contributions to that science are of inestimable value. Only about 1/3 of the entire European Jewish population is found in its western por-

tion, and the remaining 2/3 are in the east of Europe, but the number of eminent Jewish medical men in its eastern portion is negligible when compared with those found in Western Europe. The reason is obvious: The schools and universities of Western Europe received the Jewish students into their halls of learning. Not all welcomed them, but most tolerated them. This, however, was not true of Eastern Europe, and is far from being true even today. An impregnable wall of superstition and religious prejudice surrounded most of the Eastern European countries, through which the light of emancipation penetrated very slowly. This was particularly true of Russia, Poland, Roumania, and even some parts of Hungary. In Russia, as is well known, the Jew was not permitted to enter a university, except in rare privileged cases, until the reign of Alexander the Second in the latter part of the last century. The Jews of that country lived for several centuries within a restricted area, where opportunities for a secular education in a real broad sense were totally lacking. Most of the Jewish scholars satisfied their thirst for knowledge in the study of the Torah and the Talmud with all their complex commentaries. With the rise of a new liberal movement within the Jewish ranks, and the lessening of educational restrictions, the youth of Russian Jewry threw off their yoke of narrow dogma and traditional ritualism. They began to yearn for more modern and higher education. They began to knock at the doors of the higher educational institutions to gain entrance, but were told that only a very small percentage of their number would be admitted. For a short period of time the educational prospect for the Jew in Russia seemed hopeful, but with the death of Alexander II. a new reactionary period set in. The Jew was again completely disfranchised. A reign of terror, with wholesale pogroms, spread through the pale of the Jewish settlement, followed by a rigid enforcement of all educational restrictions. Many of the prospective Jewish medical students, finding the doors of the different universities barred to them, went to Switzerland, Germany, and in lesser numbers to France.

They had to endure much physical deprivation and mental anguish. Most of these students belonged to the middle or poor class, being compelled to sustain themselves through any sort of work during their student days. Some even faced actual starvation but they never waivered in their determination. The tragedy of this state of affairs is the fact that after these students graduated from some of the Western European Universities, they were not permitted to practice there, and most of them had to return to their native countries or migrate to some other land where the medical registration laws were more tolerant. Similar conditions existed, and still exist, in some other countries of Europe today where Jewish students are taking their medical courses.

In other words, the bulk of the Jewish population of Europe, outside of Germany, England, France, and probably Austria, was faced primarily by unyielding educational restrictions which prevented the most ambitious among them from entering the medical schools. Those who through special privilege did gain entrance were few in number, and had to face conditions in university life not entirely conducive to a peaceful, meditative existence. The student body has on many occasions openly antagonized them, and never welcomed them except in rare instances. They did not receive an overabundance of encouragement from the teaching faculties. They were permitted passively to go through their prescribed courses, always conscious of the fact that they were merely tolerated, but not in large numbers. Under such conditions, one may venture to suggest that toleration may be almost akin to open discrimination.

During the preceding 2 centuries, England, France, and Germany shared almost equal honors as the torch-bearers of medical progress. Now it seems that it is America's turn to bear the torch and assume the great responsibility of leading the world in many phases of modern medicine. American medicine, while still very young as compared with that of Europe, has nevertheless attained a very important and lofty position in the progressive development of every one of its

branches and particularly in the fields of surgery, sanitation and hygiene. In the last 30-40 years America has produced many of the great surgeons of the world. As original thinkers and great teachers, they are second to none. Their contributions to the art and science of surgery stand out as an everlasting tribute to their names. The hospitals in our large cities are probably the best equipped and most efficiently managed institutions of the world. Throughout the country we find many laboratories devoting much time to the study of physiology, pathology, biochemistry, etc.; all aiming at prevention, amelioration and cure of disease.

There were hardly any Jewish physicians in America during the Colonial days. The only one mentioned is Jacob Lombrozo, who practiced in Maryland in the seventeenth century. Very little progress was made in American medicine even at late as the first half of the nineteenth century. Most of the advanced medical ideas were brought over by American physicians doing post-graduate work in England and Germany. The Jewish population at that time was still very limited. Most of the Jews were new settlers trying to get a firm foot-hold on new soil. The first and even the second generation was faced by many economic and social problems of environmental adjustment. Higher education or professional careers appealed probably to very few. The number of Jewish students taking up medicine must have been negligible. Consequently, we find very few names of Jewish physicians in that early period.

The early tide of German immigration brought one Jewish physician to the United States, who made a strong impression on American medicine. Abraham Jacobi, who was born in Westphalia, Germany, graduated from the University of Bonn, and came to America in 1853 after having been imprisoned in Germany for participating in the Revolution of 1848. He settled in New York City and devoted himself to the study of diseases of children. His extraordinary abilities as practitioner, teacher and writer were soon recognized, and he was made professor of the diseases of children at the University of the

City of New York, and later at the College of Physicians and Surgeons. He started the movement for pediatric clinics in this country, and the first clinic was opened through his efforts. He played a very important part in the advancement of American medicine, and he has written many discourses distinguished for their content of wisdom, learning and wit. He wrote authoritatively on diseases of children and on the history of American pediatrics. He was the founder and editor of the *American Journal of Obstetrics*; President of the New York Academy of Medicine, the American Medical Association, and several other distinguished medical societies. He is known as the "Nestor of American Pediatrics".

One of the first American Jewish physicians who attained great eminence in the profession is Jacob de Silve Soles Cohen; considered as one of the best American laryngologists. He graduated in 1869, served with distinction in the Civil War, and was a prolific writer on diseases of the nose and throat, and a very able teacher.

Among the prominent contributors to American medicine we find quite a liberal proportion of physicians belonging to the Jewish race whose contribution to the art and science of medicine is of a momentous nature. We shall mention only a few of the most outstanding characters in that group. Jacques Loeb, Professor of Physiology and Experimental Biology in the University of Chicago, and later in the University of California, who was considered one of the foremost biologists and most brilliant investigators in many branches of physiology of his day. Simon Flexner, who is recognized as one of the foremost American contributors to original research in pathology and bacteriology. Samuel James Meltzer, whose original research at the Rockefeller Institute gained the recognition of the entire medical profession. Among others we may mention Max Einhorn, whose ingenious instruments for diagnosis and treatment of gastro-intestinal diseases were accepted by all gastro-enterologists; Henry Koplik, the pediatrician; Eisendrath, whose contribution to the subject of bile-duct anomalies has been

of inestimable value to the technic of gall-bladder surgery.

Jewish physicians occupy prominent positions in the fields of surgery, clinical medicine, and scientific medical research. They are creditably represented in every branch of medicine, as teachers, writers and original contributors. One may go to anyone of our large, well-equipped Jewish hospitals and find an intensive medical activity. This is not confined only to actual treatment of the sick, but also includes very serious clinical and laboratory research. The spirit of medical inquiry is steadily assuming a stronger hold and this is particularly true of our younger generation. Most of the Jewish medical graduates in the United States at the close of the nineteenth and the beginning of the twentieth centuries came from the ranks of those who immigrated to this country after 1882. Their economic condition did not permit them to spend years of post-graduate medical work in hospitals or research laboratories. Most of them went into general practice soon after graduation for the reason just stated. Those who were eager for hospital affiliation found very often that access to most of those institutions was not open to them for many reasons—partly racial or social, and partly religious. The adoption of higher preliminary educational requirements, better medical curricula, and the demand for one year's internship in a general hospital as part of the requirement for state license have exerted a most powerful and beneficial influence upon the marked progress medicine has made during the last 2 decades. Many recent medical graduates of the Jewish faith serve their required internships in Jewish hospitals. It is there where their post-graduate work is mostly done and their professional career is moulded. With the development of high grade Jewish hospitals in the larger cities having a substantial Jewish population, there has been a considerable and progressive improvement in the professional standing of their physicians. This is particularly true of the general practitioner, who up to recent years remained outside of the hospital, thus gradually losing interest in medical progress,

which can only be acquired in a modern hospital in which the various clinical and laboratory departments are properly coördinated. Judging from the rapid strides the Jews have made in medicine in the past, through sheer perseverance and sincere determination in spite of all obstacles, one is justified in predicting a very promising future.

A definite and strong prejudice against autopsies has always existed among most people. In the early Christian days it was based on the theologic belief of body resurrection. It still exists today, particularly among the Jewish people. Within recent years an intensive campaign is being carried on in most of the Jewish hospitals against this prejudice, and gradually some of these erroneous medieval notions are being dispelled. The modern Jewish synagogue is not antagonistic to postmortem examinations. The number of autopsies performed in most of the Jewish hospitals is gradually increasing. This is particularly true of some of the hospitals in the large metropolitan areas. There is no proof of any definite indictment against necropsies from a religious standpoint. It may be partly due to superstition, partly to sentimental reasons, and in some instances to a false religious conception. Most of it is probably due to a traditional aversion. Postmortem investigation has been the foundation upon which medicine is built. Definite knowledge of the nature and course of disease, the localization of various acute surgical ailments, was only made possible through postmortem examinations. Those who oppose it are seriously hampering medical progress, and modern Jewry ought to go on record favoring its practice for the benefit of mankind.

Modern hospitals are devoting themselves to the cure of disease, to the study of its causation and means of prevention. This requires that the community should furnish the hospital with all the laboratory facilities for the study of bacteriology, pathology, biochemistry, and all other allied branches. The establishment of scholarships for medical research ought to be encouraged. Most of those students who are imbued with the spirit of inquiry are not blessed financially. Many

scholarships have been established by philanthropic Jews. Let us hope that medicine will come in for its just share. It is only through such an attitude that our medical activity will progress on a modern scientific basis to the credit of mankind in general.

CLINICAL RESULTS WITH A NEW MAGNESIUM COMPOUND; RE- PORT ON 100 CASES IN NEU- ROLOGIC PRACTICE

C. M. TRIPPE, M.D., F.A.C.P.,
Asbury Park, N. J.

Since the introduction of phenylcinchoninic acid, in 1908, by Nicolaier and Dohrn, pharmacologists and chemists alike have sought so to modify the drug as to (a) intensify the analgesic and antipyretic effects; (b) increase the absorption; (c) widen the therapeutic or safe dosage range; and (d) decrease the toxicity. To this end, sodium and other metallic salts, and various alkyl esters, have been proposed or tried. The ethyl-ester of paramethylphenylcinchoninic acid has long been established in therapeutics. To its non-toxicity, antipyretic efficiency, and favorable action in acute rheumatic and arthritic conditions many authors have testified. Nevertheless, a refinement of technic, which would permit of comparable results with a still smaller dosage of the ester, offered the obvious advantage of a wider range in dosage through which the drug might be employed. To this end Barbour and Winter first worked out a protective synergism between magnesium-amidopyrin and magnesium salicylate in animals. Following this with work upon a combination of magnesium with phenylcinchoninic acid, these authors demonstrated that a marked decrease in toxicity occurred together with an increased antipyretic effect. Accordingly, the drug* which we have employed is a combination of

* (The author desires to acknowledge the courtesy of the Calco Chemical Company, Inc., Bound Brook, N. J., in furnishing the new compound above referred to, and whose coöperation, made possible the reported work.)

magnesium with paramethylphenylcinchoninic acid ethyl-ester, neo-magnephen. The possibility of magnesium influencing the analgesic action of drugs in man, which the above work seemed to indicate, led me to investigate clinically this possible effect. I have undertaken the present paper with the definite thought in mind that a commentary upon therapeutics in a series of subacute and chronic arthritides and myalgias might advance our knowledge of the rôle such a new product should play in empiric therapy, in comparison with those drugs previously used under similar circumstances.

METHOD

Since nearly all patients presenting themselves to neurologists complain of pain, a wide field of use in the writer's practice was quite obvious; and equally obviously cases therein would show no regard to pathology. All extramural cases occurring in the author's practice where pain of known surgical origin was the predominant symptom, were tentatively considered in this discussed group. Unsuitable cases were weeded out subsequently. Nearly all cases were ambulatory. Many conditions and occupations, all ages, and both sexes were included with a pathologic variety indicated by the tables and cited cases. No restrictions were placed upon patients but adjuvant treatments were comparatively few. Dosage was controlled without regard to weight, and not decreased because of age. The standard routine was to record the essential history of the patient, then have a blood pressure and blood Wassermann test, and such additional laboratory and x-ray work as was individually indicated. Without delay, however, for such of these proceedings as required delay, the patient was initiated upon a course of medication. The first dose was, as a rule, 10 gr. every 2 hr. for 8 doses per diem. Dosage was carefully observed for symptoms of intolerance or too protracted administration. None were observed. One case received 2100 tablets (5 gr.) consecutively without apparent ill effects. Usually 500 grains of the drug afforded semipermanent relief. Great variability of the amount required, as would be expected from the num-

ber of conditions and difference in ages and treatment, was observed in the amount affording primary relief. Quite frequently 2 or 3 tablets 3 times a day and at bedtime over a period of weeks or months was ample for control of symptoms. Dosage in excess of 150 grains per day produced some laxative effect. The patients were cautioned to take water with the drug and report their symptoms. Contrary to the usual practice recommended for drugs of this type, "rest periods" every 10 days to 2 weeks were not routinely advised; the only criterion of discontinuance for the drug being symptomatic relief maintained over a period of several weeks. Since many of these patients had previously been under my observation for many years it was felt that the error of personal equation was as nearly minimized as it may be in my judgment of so highly subjective a symptom as pain.

THE CLINICAL EVIDENCE

From the series of 100 cases, 5 were selected as conservative examples. Those cases where the result seemed to be dramatic and those where the symptomatology was vague and the results not indicative, were equally excluded. To these cited cases brief histories with various findings have been appended. The large majority of cases has been condensed into tabular form. In this table no pretense of continuity of pathology has been made for reasons previously alluded to. The internal arrangement of the table itself is self-explanatory.

Case 1. Mrs. S. J. C., aged 52, complained of pain in both arms, and severe parietal headaches with blurring of the left visual field. About October 24, 1928, developed pain and was unable to perform ordinary acts with her arms. She was placed on tolysin which seemed to control the pain but on November 17 she developed pain which was not so easily controlled. Central nervous system normal. For several years has suffered irregularly from menopausal symptoms, but in September one menstrual period occurred with subsequent drop in blood pressure. Patient is a large adult white female of middle life. Temp. 98.6°; pulse 80; R. 20; B. P. 310/220, fre-

quently fluctuates as low as 174/110. Loud aortic double murmur. Heart border approximately normal. Hb. 65%. Basal metabolism 12. W. B. C. 9400; R. B. C. 3,990,000; differential count normal. Urine 1000 c.c. in 24 hr., faint trace of albumen.

Diagnosis was bilateral brachial neuritis, with menopausal hypertension. Given 60 gr. magnesium compound daily. Fourteen days later patient symptomatically well. Medication discontinued. Average daily dose 60 gr.

Case 2. Mrs. E. C., aged 72, complained of pain in both arms. Since June 14, 1926, until July 6, 1928, has suffered from various neuritic affections. Has been on about 60 gr. strontium salicylate daily. Slightly dyspneic. Has had mild chronic endocarditis. No edema. Gastro-intestinal system gives no symptoms.

With a diagnosis of polyneuritis, particularly of the brachial sensory nerves, she was placed on the magnesium compound; 10 gr. 8 doses per day. By August 7 patient and physician agreed that drug had benefited her more than any other drug she had used. This date sciatica developed. By September 19 pain again controlled. December 3 was having lumbar spinal pain and was placed on 100 gr. daily. Complete relief on January 14. X-ray report October 18, 1928, showed lipping of the upper and lower edges of second, third, fourth and fifth lumbar vertebrae with considerable lipping of the transverse spinous processes. Medication continued until May 12, 1929, at the rate of 40 gr. daily. Total dosage of drugs in excess 2600 tablets. Discharged recovered.

Case 3. W. D. K., male, aged 53, with pain in lower back. July 7, 1928, patient developed above mentioned symptom and found that it interfered with his professional (physician) work. Heart, lungs and abdomen normal. No past illness of serious consequences. Tenderness over the sacro-iliac joint with superficial immobilization of the pelvis tending to decrease pain.

Sacro-iliac arthritis was our diagnosis. From July 7 to September 19 magnesium compound was given intermittently to 300 gr. in

this time. At the latter date pain completely controlled. Severe attack October 20 necessitated use of drug; 15 gr. daily up to December 21, at which time discontinued.

Case 4. Mrs. W. D. K., aged 54, with swelling and pain of the finger joints for several months. For 3 years this patient had some daily menstrual bleeding. B. P. 246/138. Urine normal. Loud double murmur over the aortic area. Heart enlarged to the left. No gastro-intestinal or pulmonary symptoms. Uterus acutely retroverted with one large fibroid. Diagnosis: chronic arthritis; chronic hypertension.

Patient placed upon magnesium compound after other drugs had failed. March 17, 1928, 100 gr. daily until July 17 when the pain and swelling were completely relieved. Average dosage during the majority of this treatment 20 gr. daily. September 19, fingers pliable but slight swelling. October 20 no pain, no swelling. December 16 recurrence. Magnesium compound again started; 100 gr. daily, with relief December 21, 1928. Drug discontinued December 26. B. P. 168/80. No drugs needed and no recurrence.

Case 5. Mrs. M. B., aged 49. Right brachial and precordial pain. Since July 19, 1928, the patient has suffered from above mentioned symptoms. During August the patient took luminal, and codein for relief and complained of radiating pains over the gall-bladder region, in addition to the above symptoms. Slightly nervous. No constipation but has frequent pain in abdomen. Gall-bladder removed and uterus suspended in 1926. Menopause 1923.

Right brachial neuritis. September 6, 1928, patient was placed on magnesium compound 10 gr., 8 doses per day. September 16 neuritis gone. December 17, 1928, recovered. No recurrence in subsequent 6 months.

EXPLANATORY NOTE TO TABLES

Average dose refers to the average daily dose during the period of active symptoms. Number of days refers to the same period. Total dose refers to the total dosage taken be-

fore discharged as "cured", "improved" or "unimproved". Clinical comments do not uniformly contain the same material, but suggest the most pertinent facts from the case records.

Relief is recorded as:

0	None
*	Fair
**	Complete

Discharges are recorded as:

I	Improved
UI	Unimproved
R	Recovered

Diagnoses are clinical working diagnoses without undue pathologic refinement, in which infectious arthritis is differentiated from typical acute rheumatic fever by its clinical appearance without reference to its etiology.

	Recovered	Improved	Unimproved
A. Acute rheumatism (rheumatic fever)—7	6	1	
B. Non-Articular forms muscular rheumatism:			
Myalgia—6	2	4	
Torticollis			
Lumbago—2	2		
Sciatica—3	2	1	
Brachial neuritis—15	13	2	
C. Rheumatoid (atrophic) arthritis—15	7	7	1
D. Osteo-arthritis (hypertrophic arthritis)—15	5	10	
E. Neuritis—19	13	6	
D. (a) Cholecystitis—6	5	1	
(b) Urticaria—3	3		
(c) Sinusitis—2	1	1	
(d) Hypertensive headache—3	3		
(e) Tenosynovitis—1	1		
(f) Iritis—1	1		
(g) Angina pectoris—1	1		
(h) Tic douloureux—1	1		

CHART A. GROUP I. ARTHRITIS AND ACUTE RHEUMATIC FEVER

Case	Age	Sex	Diagnosis	Clinical Comment	Aver. Daily Dose	No. Days	Dis-Relf.	chg.
1.	18	M	Acute rheumatic fever	Tonsillar infection-fever subsided in 3 days. Recovered 24 days.	80 gr.	7	**	R
2.	76	M	Infectious arthritis	Probably an infectious arthritis of focal origin	80 "	9	0	Un
3.	64	M	Sacro-iliac chronic arthritis	Hypotension-neocinchophen and oxyliodid failed to relieve.	40 "	28	**	R
4.	43	M	Subacute sacro-iliac arthritis	Acetylsalicylic acid failed to relieve.	80 "	3	**	R
5.	40	M	Chronic sacro-iliac arthritis	Apparently a case of sprain, industrial accident.	40 "	101	**	R
6.	53	M	Chronic sacro-iliac arthritis	Total dosage more than 5000 gr. without intermission.	40 "	170	*	I
7.	37	M	Acute sacro-iliac arthritis	Spasticity of lumbar muscles, 2 separate attacks cured.	60 "	59	**	R
8.	62	F	Chronic arthritis deformans	Peri-articular inflammation disappeared under treatment.	40 "	21	**	R
9.	54	F	Chronic arthritis	Compared with neocinchophen and found to be superior.	100 "	270	*	I
10.	40	F	Arthritis deformans	Coincident trifacial post encephaletic neuralgia.	40 "	107	**	R
11.	46	F	Chronic atrophic arthritis	Salicylates did not relieve. Tolysin slightly relieved.	40 "	3	**	R
12.	?	F	Chronic arthritis deformans	Chair ridden — hopeless case. Confined to chair for 20 yrs.	15 "	30	*	I
13.	55	F	Chronic arthritis deformans	Neocinchophen and oxyliodid failed.	10 "	270	*	I
14.	63	F	Chronic arthritis deformans	Chronic osteo-arthritis. X-rays show lipping all joints.	40 "	210	*	I

Case	Age	Sex	Diagnosis	Clinical Comment	Aver. Daily Dose	No. Days	Relf.	Dischg.
15.	60	F	Chronic arthritis deformans	Hypertension case. Died of cerebral hemorrhage months later.	140 "	162	*	I
16.	45	F	Chronic rheumatic fever	Salicylates failed; aspirin failed 90 gr. daily. Quieted auricular flutter. Died of cardiac disease 5 mo. after drug discontinued.	80 "	28	*	I
17.	64	F	Chronic hyper. arthritis	B.P. 170/100 urine: w.b. c. **, tolysin, oxyliodid failed.	40 "	108	*	I
18.	79	F	Chronic hyper. arthritis	Confined to house for 4 yr. Salicylates failed. Now working.	40 "	30	*	I
19.	60	F	Chronic hyper. arthritis	Much joint effusion. Better results with mag. comp. than any other antirheumatic drug.	80 "	131	*	I
20.	79	F	Chronic hyper. arthritis	Acute attacks, unknown etiology.	40 "	2	**	R
21.	56	F	Chronic hyper. arthritis	Neocinchophen failed to relieve. Still using some of drug to prevent possible repetition of attacks.	40 "	23	**	R
22.	64	F	Arthritis deformans	Atrophic type, right hip.	40 "	30	*	I
23.	59	F	Polyarthritis	Focal infection from teeth. Many joints involved. Magnesium compound controlled all pain until teeth were extracted. No further drug was necessary.	80 "	12	**	R
24.	48	F	Chronic rheumatic arthritis	Abscessed teeth and tonsils. Surgery removed foci. Mag. drug controlled pain prior to dentistry.	80 "	8	**	R
25.	26	M	Acute gen. arthritis	Acute gon. arthritis without suppuration.	80 "	2	**	R
26.	41	M	Atrophic chronic arthritis	Ankylosis of the knee for 4 yr. Tolysin failed.	80 "	16	*	I
27.	57	F	Chronic mult. arthritis	Tonsillar focus-radium and x-rays used.	40 "	43	**	R
28.	33	M	Acute arthritis	Monoarticular of left knee—Wassermann 4*.	30 "	2	**	R
29.	59	F	Arthritis deformans	Complicated by carcinoma left breast. Arthritis both hands.	40 "	155	*	I
30.	45	M	Chronic sacro-iliac arthritis	Associated optic styes apparently cured.	40 "	24	**	R
31.	40	M	Sacro-iliac arthritis	Focal infection from teeth and tonsils. Foci removed later.	40 "	3	*	I
32.	48	M	Subdeltoid bursitis	Following removal of tooth. Acetylsalicylic acid failed.	80 "	1	**	R
33.	62	F	Arthritis deformans	Coincident gall-bladder infection cured by cholecystotomy.	40 "	113	**	R
34.	65	M	Synovitis	Paget's disease, chronic endocarditis.	40 "	149	*	I

NEURALGIA. GROUP II. NEURITIS

Case	Age	Sex	Diagnosis	Clinical Comment	Aver. Daily Dose	No. Days	Relf.	Dis- chg.
1.	31	F	Glosso-phar. neuritis	Associated geographic tongue, arthritis of knees.	40 gr.	4	*	I
2.	49	F	Brach. neuritis	Right arm. Allonal in large doses used.	80 "	11	**	R
3.	70	M	Bilateral br. neuritis	Focus of infection not found upon examination.	40 "	7	**	R
4.	31	M	Brach. neuritis	Left side. No pathology found.	80 "	1	**	R
5.	50	F	Brach. neuritis	Complicated by myocarditis-salicylates caused gi. upset.	40 "	30	*	I
6.	72	F	Bilateral br. neuritis	Salicylates failed to relieve. Total dosage 1400 tablets.	40 "	175	**	R
7.	54	F	Polyneuritis	Focus of suppuration in ext. auditory meatus KI failed intravenously.	60 "	125	**	R
8.	61	F	Polyneuritis	Pernicious anemia developed. Pain relieved.	40 "	10	**	R
9.		F	Chr. mult. neuritis	Apparently so relieved the pain that alcoholic addiction ceased.	40 "	16	**	R
10.	40	F	Spinal cord tabes	Spinal root signs late; peripheral neuritis early.	80 "	4	*	I
11.	58	M	Tabes dorsalis	Coincident with bismuth treatment.	40 "	26	*	I
12.	70	M	Brach. neuritis	Right arm. Infected prostate.	40 "	3	**	R
13.	34	M	Peripheral neuritis	Had been on large doses of allonal.	80 "	20	**	R
14.	53	F	Brach. neuritis	Right arm. Addicted to acetylsalicylic acid. Mental state poor.	40 "	22	**	R
15.	70	M	Sciatic neuritis	Right side. No recurrence ever reported.	40 "	15	**	R
16.	49	M	Tabes dorsalis	Controlled gastric crisis and neoparsphenamin dermatitis.	40 "	82	**	R
17.	36	F	Brach. neuritis	Right side. Superinduced by work, sweeping floors.	40 "	14	**	R
18.	47	F	Polyneuritis	Case of adiposity, wt. 250 lb. Coincident nephritis. Cured constipation.	40 "	42	*	I
19.	60	F	Polyneuritis	Treatment dosage left to patient.	40 "	23	**	R
20.	52	F	Bi lat. brach. neuritis	Severe menopausal hypertension quieted down simultaneously.	40 "	7	**	R
21.	62	F	Post-occip. neuralgia	No focal infection discovered. No return of neuralgia.	40 "	17	**	R
22.	60	M	Brach. neuritis	Probable low grade blood stream infection. Teeth infected.	80 "	8	**	R
23.	58.	F	Bilat. brach. neuritis	Possibly complicated by subdeltoid bursitis.	80 "	7	**	R
24.	53	F	Brach. neuritis	Occupational neuritis. Music teacher Arthritis.	40 "	16	**	I

Case	Age	Sex	Diagnosis	Clinical Comment	Aver. Daily Dose	No. Days	Relf.	Dis-chg.
25.	32	F	Chronic myositis	Lower spinal muscles.	40 "	60	**	R
26.	31	M	Chronic myositis	Probably occupational disease involving peroneal muscles.	40 "	30	**	R
27.	53	F	Myositis	Hypertension case. Atrophic hepatic cirrhosis.	80 "	3	*	I
28.	32	M	Spinal ac. myositis	Direct strain followed by chill.	60 "	3	**	R
29.	77	M	Lumbar myositis	Duration 2 yr. after a fall.	50 "	150	*	I
30.	68	F	Sciatic neuritis	Case of hypertension 240/180. Wt. 234 lb.	40 "	300	*	I
31.	19	F	Facial neuritis	College student. Had to skip 1 year before returning. Has had some arthritis.	15 "	60	**	R
32.	67	F	Sciatic neuritis	Case of hypertension. 220/100 — X-rays show liver enlarged.	40 "	42	**	R

CHOLECYSTITIS AND MISCELLANEOUS. GROUP III.

Case	Age	Sex	Diagnosis	Clinical Comment	Aver. Daily Dose	No. Days	Relf.	Dis-chg.
1.	48	F	Chronic cholecystitis	The patient is apparently permanently symptom free from the treatment.	20 gr.	86	**	R
2.	55	F	Chronic urticaria	Associated with arthritis deformans.	40 "	107	**	R
3.	59	F	Chronic sinus	Long periods of relief (5 months) between attacks by use of mg. compound.	40 "	3	*	I
4.	48	F	X-Ray dermatitis (Urticaria universalis)	Result of deep x-ray therapy for fibroid.	30 "	2	**	R
5.	54	F	Chronic headache	Chronic hypertension apparently relieved by drug. Menopausal.	40 "	4	*	I
6.	36	M	Chronic headache	Strontium salicylate failed to relieve.	40 "	1	**	R
7.	70	M	Chronic tenosynovitis	Salicylates failed to relieve.	40 "	8	**	R
8.	35	F	Cholecystitis	X-rays show extensive pericholecystic adhesions.	80 "	22	**	R
9.	51	F	Cholecystitis	Symptomatic diagnosis. X-rays negative. Salol failed.	40 "	8	**	R
10.	37	F	Cholecystitis	Diagnosis confirmed by x-rays; no operation, no recurrence.	80 "	16	**	R
11.	48	F	Cholecystitis	X-ray diagnosis; cholecystitis without calculi; operation unnecessary. B.P. 200/100.	40 "	2	**	R
12.	54	F	Pericholecystitis	Prolonged case with various efforts at diagnosis and treatment.	80 "	503	*	I

Case	Age	Sex	Diagnosis	Clinical Comment	Aver. Daily Dose	No. Days	Relf.	Dis- chg.
13.	67	M	Rheumatic iritis	Seemed to exert a specific and curative result in a severe case.	40 "	120	**	R
14.	59	M	Angina pectoris	X-rays showed aortic aneurysum.	80 "	67	*	I
15.	78	F	Chronic spastic myositis	B.P. 220/100. Cerebral hemorrhage 2 yr. ago.	40 "	142	*	I
16.	75	F	Chronic arthritis	B.P. 240/140. Other antirheumatic medicine failed.	50 "	247	*	I
17.	45	F	General urticaria	Hypothyroid case. Pituitary headaches. Internal glandular substances of no avail. Cured with mag. compound.	60 "	133	**	R
18.	54	F	L. Brach. neuritis, intercostal neuritis	Cured in 12 days of brach. neuritis and intercostal neuritis. Pain in back and knees was also completely cured later with mag. comp.	40 "	75	**	R
19.	37	F	Facial neuralgia	Not cured after extraction of infected teeth. Was cured with mag. compound.	60 "	185	**	R
20.	74	F	Ac. arthritis—right hip	Cured of arthritis in 3 weeks with mag. comp. No pain after. Died apoplexy 5 mo. later.	40 "	21	**	R
21.	41	F	Multiple neuritis and cholecystitis	Very bad, when off mag. comp. Controlled with mag. compound.	40 "	123	*	I
22.	31	M	Chronic sinusitis	Constant frontal headache, region of frontal sinus. No relief with aspirin or other salicylates.	30 "	10	**	R
23.	73	F	Occipital neuritis	Blood chemistry showed very high urea nitrogen and uric acid and hypocalcemia. Blood chemistry balanced by magnesium compound.	80 "	130	*	I
24.	40	F	Neuralgic headache	Hypocalcemia — high urea 100 and uric acid. Corrected by magnesium comp.	100 "	158	**	R
25.	61	F	Spinal arthritis	Hypocalcemia — high urea and uric acid with chronic cerebral hypertension.	40 "	147	*	I
26.	47	M	General neuritis	Chronic eczema cured in 3 days with mag. comp. 12 tablets daily for 6 mo.	60 "	180	**	R
27.	29	M	Multiple neuritis and cholecystitis	Diagnosed by orthopedist as a tuberculous spine. Salicylates failed to relieve.	100 "	129	**	R
28.	49	M	Suboccipital myositis	From spastic colitis mag. comp. cleared this up and cured his case.	60 "	11	**	R

Case	Age	Sex	Diagnosis	Clinical Comment	Aver. Daily Dose	No. Days	Relf.	Dis- chg.
29.	28	F	Tic douloureux	Following extraction of third upper molar. Neuralgia entirely cured.	60 "	8	**	R
30.	45	F	General neuritis	Also lumbago. Mucous colitis and influenza. Other antirheumatic remedies failed.	40 "	37	**	R
31.	46	M	Chronic fibromyositis	Daily headache and backache. Everything tried without relief. Very chronic had it for 10 yr. Myositis controlled with mag. comp.	75 "	82	*	I
32.	60	F	Spinal arthritis from trauma	Following Bright's disease and diabetes.	40 "	142	*	I
33.	48	F	Suboccipital neuralgia	Has taken aspirin ever since it came on market, with no relief Amidopyrin or heavier drugs gave no relief. B.P. 290.	80 "	109	*	I
34.	49	F	Sacro-iliac arthritis	Complicated; complete retrodisplacement of uterus. Cure aided by pessaries.	40 "	85	**	R

Where pain is the chief symptom, both patient and physician are liable to err in judgment concerning the degree of relief afforded by each drug in a group successively employed. Correct impressions under such conditions do not arise from single cases nor from small groups. Taken in the aggregate, however, 100 cases (selected from over 300) observed over a period of more than 18 months, have real significance. It will be observed from the tabular presentation that all the more usual types of medication had previously been employed in the chronic cases. Rather fortunately, therefore, their reactivity to such was a known factor. These medications chiefly failed for 1 of 3 reasons (a) too weak analgesic effect, (b) too toxic or habit-forming, (c) too intermingled with undesirable side-effects. Where the new drug gave greater relief after a previous course with phenylcinchoninic drugs uncombined with magnesium, cumulative action might be suspected as the reason for relief; but over a large series the constant suddenness of relief with the magnesium compound precluded such a conclusion. Blood chemistry analyses (56 in all) made upon many of the reported

cases showed such variations that they were excluded as not shedding any additional light upon the question involved.

CONCLUSIONS

From the results it would seem that the following may fairly be deduced:

(1) Pain not tractable to other mild forms of medication responds promptly to the magnesium combination with paramethylphenylcinchoninic acid ethyl-ester.

(2) Pain disappears more promptly with the magnesium combination than with equal or larger amounts of the uncombined ester.

(3) Marked permanent improvement in the peri-articular and tenosynovial pathology has frequently appeared.

(4) Urticaria has frequently been relieved.

(5) No untoward effects were observed, especially gastric disturbances being absent or any bad effect upon the heart of any description.

(6) In general the drug seemed superior to other phenylcinchoninic and similar drugs.

MEDICOLEGAL ASPECTS OF LOW BACK INJURIES

MAX KUMMEL, M.D.,

Member New Jersey Bar

Newark, N. J.

Much has been learned of back injuries since the outbreak of the World War. The diagnosis and management of fractures of the spine have to a certain extent been standardized by the Fracture Committee of the American College of Surgeons. The pathologic changes in injured muscles, tendons, ligaments and cartilages have been clearly demonstrated during operative procedures and in postmortem findings. However, a rather important phase has been generally neglected, i.e. the procedure for examining end-results, the elicitation of permanent pathologic changes, and their translation into numerical values of percentage loss of function, considering the body as a normal physiologic unit.

Recently I had occasion to witness a formal hearing of a case which I considered of vital interest to the medical profession because of the nature of the medical testimony. The attending physician testified that he was called to treat the man immediately after the accident, obtained a history of something snapping in his back when he was lifting a piece of terra-cotta, and diagnosed it as a sacro-iliac sprain. Upon objection to the history, the court ruled that "a history taken by the attending physician during the course of his examination for the purpose of arriving at a correct diagnosis and instituting proper treatment is admissible in evidence". The doctor further testified that "he put him in a plaster jacket, then strapped with adhesive plaster, ordered a sacro-iliac belt and administered physiotherapy". On further questioning, he stated that the man was suffering from a 20% total permanent disability as a result of the accident. Upon cross-examination, the doctor admitted that he based his conclusion on his opinion that the man had a bad back and that 20% disability would compensate him.

The next doctor on the witness stand was a so-called expert. He looked very important, qualified as a surgeon with 11 years' experience in estimating disabilities, stated that he took a careful history, made a diagnosis of right sacro-iliac sprain and myofascitis of the gluteal muscles, and concluded by saying that the man was suffering from a 20% total permanent disability. Upon objection to the history, the judge ruled that "a history taken during examination of patient for the purpose of giving expert testimony is heresay and not admissible in evidence". On cross-examination, the witness testified that he based his conclusion on his experience of examining 12,000 traumatic cases.

Neither of the above physicians could account for how he arrived at a 20% figure. At best they were arbitrary opinions since neither attempted to determine the extent of morbid anatomy or measure the degree of impaired function.

The physician of today is a highly specialized professional who is called upon by the courts to testify not only as to facts within his knowledge but, by utilizing his skill and experience, to help the courts determine the extent of deviation from the normal form and function. Every medical practitioner is subject to call and no specialist or consultant is exempt. The rapid development of modern industry with its complicated machinery has given rise to a multiplicity of injuries, some mild and transitory in character but others rather severe and permanent in nature. Injuries to the lower back are frequent among them. These are rarely diagnosed correctly, frequently neglected, generally mistreated or maltreated, and quite often attributed to other conditions such as lumbago, sciatica, neuralgia, etc.

No doctor should undertake to prognosticate and estimate permanent disability in back injuries unless he familiarizes himself with the normal anatomy and physiology of the back. However, every practicing physician is expected to know the normal shape and contour of the spine, the location and function of the major muscles, the action of the ligaments, and be familiar with x-ray views of

the normal structures of the lower back. Above all, the medical witness should know the normal range of back motion before he can decide on what constitutes the abnormal.

HISTORY

To thoroughly understand injury to the back and its consequences the physician should take a very careful and complete history. The type of trauma and mechanism of the injury will often indicate the diagnosis and nature of the disability. Where the injury was produced by *direct trauma*, such as a fall or blow on the back, it may produce fracture of the body of a vertebra or one of its processes. If severe enough, it may be transmitted to the viscera and produce a lacerated or ruptured kidney. In the milder form we find occasionally torn ligaments, a simple myositis or fibromyositis, and more rarely a myositis-ossificans or osteoporosis (Kummell's Disease).

In cases of *indirect trauma* to the lower back, with which we are concerned most, one must be careful to note the type of trauma, the mechanism of injury and the distribution of any pain. It is a question of leverage; if transmitted through the hamstrings unilaterally to the pelvis it is bound to cause a sacroiliac sprain. Leverage applied from above with the spine in flexion is more apt to affect the lumbosacral region. Pain distributed along areas supplied by the fifth lumbar and first sacral nerves points to a lumbosacral injury, while pain along areas supplied by the lumbosacral cord, first and second sacral and superior gluteal, tends to confirm a sacroiliac diagnosis.

X-RAYS

Radiography is essential in all injuries of the back. Always take pictures in 2 planes. They are corroborative if positive, but not always illustrative of the extent of disability if negative. To quote Dr. Elsberg: "A trauma may be immediately followed by slight or marked symptoms and signs of a marked cord lesion, although the radiograph does not show any fracture or dislocation of bone. The spinal cord symptoms may be due entirely to *concussion* which is a real entity, and on which

there are minute hemorrhages into the cord tissue. On the other hand, a fracture may not be seen on the radiograph although it is found at an operation or on postmortem examination."

I witnessed such a case at the Massachusetts General Hospital last October. A man of about 27 injured his back, had persistent pain and tenderness over the lumbar spine and was unable to work. Repeated x-ray examinations proved negative. Operative procedure was decided upon. Dr. Wm. H. Rogers exposed the spine and found a definite dislocation with articular facets overriding.

PRE-EXISTING CONDITIONS

(1) Congenital anomalies, particularly about the lumbosacral joint, may not be disabilities, but just a variation of architecture such as sacrolization of the fifth lumbar vertebra, horizontal sacrum and supernumerary lumbar vertebrae.

(2) Arthritis trauma always aggravates it and usually renders an apparently normal individual helpless. A number of the more severe cases of back strain showed undeniable osteo-arthritic changes antedating the injury.

(3) Focal infection and auto-intoxication: While either one may be a factor in prolongation of the period of disability in back injuries, nevertheless I feel that frequently either one is an excuse for undiagnosed or misunderstood pathology. I have seen many disabled men lose their tonsils, sacrifice their teeth, get high colonics without any improvement.

(4) Back pains may be due to preëxisting orthopedic defects of the feet, or pathology in the genito-urinary tract.

(5) Compensatory changes of back due to malalignment of fragments in fractures of the lower extremity; you generally find a compensatory scoliosis to overcome the shortening of a limb.

MALINGERING

The back may constitute a prolific source of income for the professional malingerer, but the examiner can determine that with a little careful observation and a few simple maneuvers.

(1) Unilateral spasm of the sacrospinalis: It is practically impossible to produce a voluntary spasm on one side for any length of time.

(2) Bending forward, the malingerer will claim to be unable to flex his spine, yet he will automatically bend over and lift an article dropped by the examiner.

(3) In standing position he will not bend forward, yet on his back he will bring his knees to his chest.

(4) He will undress very guardedly and remove his shoes and stockings with difficulty, yet after examination he will dress quickly and naturally.

(5) Malingering should and must be distinguished from traumatic hysteria or neurosis. The suffering is actual although out of proportion to the trauma sustained. I recollect the case of an Italian watchman who slipped and fell, landing on his buttocks. Although radiography was negative, and local symptoms absent, yet he was unable to stand without crutches or sit on a chair. Long after his case was settled and the money collected his physical and psychic condition remained unchanged.

ESTIMATING PERMANENT DISABILITY

Permanent disability is the residual damage or loss of use after all medical, surgical and physical measures have been employed and a sufficient interval allowed for the ordinary consequences of trauma to disappear by natural means.

Dr. Moorhead was the first to suggest a method of estimating permanent disability. He considers the following factors: (1) Function 60%. (2) Union 20%. Contour 20%. However, he does not state how to measure these factors. Furthermore, it is difficult to disassociate union from function while contour in a workingman is not essential unless it is either the result of poor union or interferes with proper function.

The uniform method used by the fracture service of the Massachusetts General Hospital is to measure the disability at the end of 1 year and to record the estimation in letters as follows:

A E F

{

Anatomic result

Economic result or earning capacity

Functional result

The use of figures: 1. 2. 3. 4. ($A^3 E^3 F^4$) after each letter gives the percentage value to the final estimation allowing a range of 25% for each figure.

The objections to this method are that the figures (25%) are too far apart, and that the anatomic and functional results are inseparable. Furthermore, the economic factor is misleading because a man with poor function and rich uncle can get an easier and more remunerative job, be rated as E^4 , and be deprived of compensation he is rightly entitled to.

For our purposes function is the sole factor to be considered in estimating permanent disability of injuries to the lower back. We must bear in mind that we deal with the spine, which is a flexible column composed of a series of vertebrae and intervertebral discs, held together by strong ligaments and supported by muscles. The joint area involved consists mainly of a group of 3 joints: the lumbosacral and both sacro-iliac joints which, because of their close anatomic relation and common function, bear the same load and distribute the stress and strain equally. This region allows the movements of flexion, extension, side bending and rotation. For practical purposes we consider the function of the lower back as that of weight lifting and motion and any pathologic condition impairing either or both of these functions constitutes a permanent disability.

PROCEDURE

History. Inquire whether trauma was direct by blow or fall. If indirect, whether leverage was transmitted from above or below; also inquire what position renders him comfortable, and the area of distribution of pain if he has any.

Inspection. Gait, color, deformity, posture, muscle status, spasm, atrophy or hypertrophy.

Palpation. Tenderness, spasm and rigidity—whether constant or disappear on changing position; muscle atrophy, hypertrophy, infiltration or fibrosis.

Motions. Flexion, extension, side bending and rotation. When limitation of motion is reached ask patient to indicate with finger the area of pain complained of. Mark it with ink. Next have him go through similar exercises while standing, sitting and lying down and observe whether area of pain is constant.

Weight-Lifting. Ask him to lift objects of known weight, starting with about 10 lb. and gradually increasing. Another method is to have the patient pull on an apparatus with a graduated weight scale and note the maximum attained. The average individual is capable of lifting about $1/3$ his body weight, but the test is not reliable since the human element enters into it, and if the patient is not co-operative his lifting capacity cannot be determined. Furthermore, we have no way of determining his previous lifting capacity.

By comparing the degree of motion elicited upon examination with the normal range of that type of individual, we arrive at a definite percentage. Assuming 90° to be normal forward flexion for the individual, and upon measuring we find, let us say, 54° , then $90:100:54::X$ —which equals about 60% of motion left, or a loss of 40%. Assuming, for the sake of illustration, the loss of flexion to be 40%, extension 20%, lateral flexion 15%, rotation 5%—by adding the total loss, which is 80%, and dividing by the number of motions of the back, we have $80 \div 4 = 20\%$, the figure for loss of function.

Since it is impossible to say which of the 2 functions of the back is more important for ordinary pursuits of the workingman, because free and unrestricted motion is as essential for the laboringman as a normal and unlimited weight-lifting, we must ascribe an equal value to each of these factors. However, after determining the percentage loss of each we may consider the functional loss to be equal to the maximum of either of the component factors. The function with the lesser disability merges into the one with the greater so that the ultimate amount of disability does not equal the sum-total of both, but to the higher figure of either of the 2 component factors. To illustrate: if the loss of motion is 20% and the weight-lifting is

15%, the latter merges into the former and the ultimate amount equals 20% of total permanent disability.

CONCLUSIONS

(1) Estimation of permanent disability is not based on personal opinion or past experience, but on actual measurement of functional disability.

(2) Time—when all acute symptoms have subsided and further treatment does not affect the injured part.

(3) Careful history of the type of trauma and mechanism of injury is essential.

(4) Diagnosis must be made and confirmed by all means available.

(5) Extent of the normal range of motion should be familiar to the examiner.

(6) Preexisting condition—when such is demonstrable the amount of disability allowed should be for the aggravation only.

(7) Malingering can be easily detected in the examination of back injuries.

RECENT ADVANCES IN DIAGNOSIS AND THERAPY*

HYMAN I. GOLDSTEIN, M.D.,
Camden, N. J.

For one to cover the subject assigned me for this evening, in the brief time allotted for discussion, would indeed be an impossible task. However, with your indulgence and forgiveness, I shall endeavor to touch briefly on a number of the more important and practical recent advances in treatment and diagnosis. Since beginning the practice of internal medicine, 21 years ago, there has been a rapid, kaleidoscopic progress in methods of treatment and diagnosis.

It was in 1909 that Blair Bell, of Liverpool, described the active principle of the posterior pituitary body. In 1916, E. C. Kendall, of the Mayo Clinic, gave us *thyroxin*, the active principle of the thyroid gland.

* (Read before the Camden County Medical Society, May 13, 1930.)

Banting and Best, of Toronto, in 1922, stirred the medical world with discovery of *insulin*, followed shortly by Adolph Hanson (Minnesota), in 1923, and Collip's work on the parathyroid, *parathormone*.

Then came the use of liver extract for hypertension (1924), and eclampsia (1927), and Minot and Murphy's liver treatment for pernicious anemia, now being supplanted by the use of special liver extracts and stomach-wall preparations. Whipple, Robscheit-Robbins and Walden, of University of Rochester Medical School (Amer. J. Med. S., May 1930, p. 628), have recently reported a new liver fraction which contains 65 to 75% potency of whole liver, 3% by weight, for new hemoglobin production in experimental anemia due to hemorrhage. It is advisable to supplement this new liver fraction with iron and small amount of whole liver in the treatment of both pernicious anemia and secondary anemia.

The presence of an anti-anemic substance in stomach tissue was demonstrated by the collaborative studies of Sharp and Sturgis, and Isaacs, of the University of Michigan. (Jour. A. M. A., Sept. 7, 1929.) This stomach-wall extract, sold under the name of *ventriculin*, is a dry, granular, insoluble, palatable substance when taken in a half-glass of water, fruit or tomato juice. Two or 3 teaspoonfuls (10 gm.) can be taken 2 or 3 times a day. It is believed that this dessicated stomach extract is even more effective than liver in bringing about rapid remission in cases of pernicious anemia.

E. Lombardi (Riforma Medica, Naples 4617, Jan. 6, 1930), Blotner and Murphy have shown that blood sugar is greatly reduced by the ingestion of liver; 180 gm. raw liver pulp will produce the same results as 10 to 15 units of insulin. This explains why Blotner and Murphy observed in some patients with pernicious anemia taking a liver diet strange symptoms, such as a feeling of hunger, headache, sweats and nervousness (hypoglycemia). Lombardi found that blood sugar in diabetes is greatly reduced by the ingestion of liver pulp, and believes the liver pulp contains an active sugar-reducing substance. Prof. Nonnenbruch, Prague University Clinic, recommends the use of *ferro stabil*

tablets, 4 or 5 daily, in conjunction with liver treatment for severe anemia. I might state here, parenthetically, that the use of *sulfobetin* (Bratislava, Czecho-Slovakia) 5 tablets daily, always before meals, has given apparently good results in some cases of diabetes.

I need only mention the female sex hormones "*thcelin*" (Doisy's follicular hormone, Aug. 1929) *folliculin*, *plestrin* and *progynon*, and the male sex hormone *lydin*, the active principle from the interstitial cells of Leydig in the testis. You will recall that von Poehl previously separated a crystalline substance from the testis called *spermin*.

Mention must be made of separation of the oxytocic, (*oxytocin* or *pitocin*) and pressor (*vasopressin* or *pitressin*) principles of the posterior lobe of the pituitary body. French workers have, by means of fractioned precipitations, isolated from the press or principle the antidiuretic substance contained in the posterior pituitary body. Only 2 mgm. of this substance (Marcel Labbi, Boulin and Justin Bezancon) suffices to reduce the diuresis in diabetes insipidus from 15 liters to 450 c.c.

I wish now to call your attention to *nirvanol*, a hypnotic first introduced for the treatment of chorea by Freda Roeder in 1919. In 1929, Poynton and Schlesinger reported use of this remedy with favorable results in 6 cases, and Cunningham treated about a dozen cases of chorea in 1928 at the Strong Memorial Hospital, Rochester, N. Y. Whitaker, of East London Hospital for Children, treated 11 cases of chorea with *nirvanol* during 1929, and Hugh T. Ashby used it at the Royal Manchester Children's Hospital, at Pendlebury. The curative effect is apparently due to bodily reaction produced by the "nirvanol sickness" resulting from use of this remedy, a reaction closely allied to serum sickness. The drug is given orally in dosage of 0.3 gm. per day to children 3-14 years of age, until the appearance of a morbilliform rash with pyrexia and some drowsiness; urinary incontinence may appear in advance of the rash. Rest in bed during treatment is of the utmost importance. With the onset of fever the choreic manifestations are aggravated, but with disappearance of the rash they improve with dramatic

suddenness and are generally completely arrested within 7-10 days. A true eosinophilia occurs as the most constant sign of the reaction and reaches its maximum just before appearance of the rash.

Strepto-cardio-arthritis serum and *antigen* ("S. C. A."), as introduced by J. C. Small for acute rheumatic fever and chorea, have been used to some extent during the past 3 years, and good results have been reported from the Philadelphia General Hospital. Parathormone may be used hypodermically in chorea together with the above suggested remedies.

Recently, the use of *ergosterol*, *acterol* or *viosterol*, has been popularized in the treatment and prevention of rickets, tetany, osteomalacia, and Paget's disease of the bones—jointly with parathormone and calcium administration, and use of ultraviolet rays. In these cases, calcium gluconate, *Sandoz*, and *afenil* may be given intravenously, and parathormone hypodermically. I am of the opinion that it is still advisable to give cod-liver oil with the viosterol in indicated cases, because it is often overlooked that viosterol contains only vitamin D. Overdosage of viosterol may cause vascular changes. Hess, Weinstock and Rivkin (1930) found that chickens require a much greater amount of irradiated ergosterol than its cod-liver oil equivalent in order to protect against leg-weakness. In some infants 20 drops of viosterol failed to prevent rickets although the inorganic phosphorus concentration of the blood was maintained. It must be remembered, too, that 20 drops of viosterol is equivalent to 10 teaspoonfuls of cod-liver oil! The present method, therefore, of standardizing irradiated ergosterol is unsound from the clinical point of view and it would be better to compute activity on the basis of "protective or curative rat units" than on the basis of "cod-liver oil units".

I shall not discuss in this brief paper the important advances made in study and use of the various *vitamins* from A to F. In a few years our alphabet will probably all be used—and yet healthy successful world-leaders grew up

during the many centuries gone by without even a uniform alphabet!

Recently, Max Lowenthal (British Med. Jour., July 12, 1924) and Archibald Hoyne (Illinois Med. Jour., Oct. 1929) have recommended the use of *pyramidon* in the treatment of measles. The recommended dose is 1 gr. per year of age up to 5, the maximum being 5 gr. regardless of age. It reduces temperature, allays cough, and shortens the period of illness. I saw its use in a very malignant form of erythema nodosum, in a young woman, bring down the temperature and relieve the pain and discomfort. Whole blood injections (parental or from recently recovered cases) intramuscularly, have recently been recommended.

I recommend the use of *urotropin* (40% solution) intravenously in 5-10 c.c. doses for the treatment of herpes zoster and erythema multiforme.

Cylotropin (urotropin and sodium salicylate solution) may be used intravenously instead; very effective in treatment of pyelitis.

The use of vaccineurin in the treatment of neuralgia and neuritis, bronchial asthma, tabetic pains and pain of duodenal and gastric ulcers, might be discussed here with advantage. Vaccineurin (Serumwerk, Dresden) is a non-specific autolysate of *Bacillus prodigiosus* and *staphylococcus*, and has proved to be a powerful and effective neurotropic vaccine. I shall not discuss here the strong neurotropism of certain bacteria and bacterial preparations in vivo and in vitro. The fact remains that vaccineurin has been successfully used in many cases of sciatica, postinfectious neuritis, and in asthma. Of course, one must be certain of the diagnosis: cord tumors, diabetes, bone tumors, rectal, prostatic and sacro-iliac disease, must all be ruled out. Diseased tonsils, infected sinuses, bad teeth, syphilis, and adnexal disease must all be properly treated, if present. It is assumed that in all cases of "neuralgia" and "neuritis", of various forms and in different locations, a thorough diagnostic survey is made before treatment is begun.

Mode of application: Vaccineurin is injected into the extensor musculature of the

upper arm or thigh or into the gluteal muscle. The dose should be adapted to the individual case; it sometimes causes exceedingly violent reactions in the affected nerve, especially if the affection is of long standing. It is therefore necessary to give larger or smaller doses according to the nature of the disease and the general reactions. In mild cases of gastric and duodenal ulcer, the commercial dose should be injected undiluted intramuscularly; in medium and severe cases, intravenously (according to Holler). The intravenous injections cause especially severe reactions, subsiding after 24 hours, but the results are excellent. Pains often disappear after a single injection.

Dosage: Each ampule contains in 1 c.c. of fluid, the amount of vaccineurin sufficient for 1 injection. The ampules should be thoroughly shaken, as one shakes a clinical thermometer, and an interval of 2 days should elapse between injections. First series consists of 6 injections gradually increasing from 0.02 c.c. to 0.07 c.c. Second series: seventh to twelfth injections 0.1 c.c. each. Third series: thirteenth to eighteenth injections 0.2 c.c. each.

By the first series of injections, the body is prepared for the higher dosage to be injected in the second and third; they are so-to-speak immunizing doses, while those of the second and third series are the real therapeutic doses by which the healing is effected. Permanent cure has often been observed after the second series, but it should not be expected before the eighth or tenth therapeutic dose (fourteenth or sixteenth injection). For a thorough cure, the 3 series should be applied. If a dose is not tolerated, half this dose is injected the next time, then continuing the regular doses. The pains are often markedly relieved a few hours after the first injections or even disappear for some time (negative focal reaction). In other cases slight focal reactions may appear, expressed by a slight increase of pain in the region of the affected nerve trunks (positive focal reaction). This increase of pain is of short duration. Cases with a positive focal reaction have the most favorable prognosis. After the fourth or fifth injection, the pains begin

to disappear, and mobility reappears in the paralyzed parts. Fatigue and temporary increases of temperature on the days of injection may be secondary reactions. In extremely rebellious cases, for repeated treatment in tabetic processes, the combination of vaccineurin with *B. pyocyaneus* is recommended.

SYPHILIS

I need not take your time on this occasion to discuss the great advances made in diagnosis and treatment of syphilis since discovery of the spirochete and introduction of the Wassermann tests. We now have, in addition to arsphenamin and neo-arsphenamin, the various bismuth preparations including bismarsen and camphobismol and the mercurials, novasurol, salyrgan, and novurit, and spirocid.

Last year, while in Vienna, I had the opportunity to work with Professor J. Gerstmann and B. Dattner, in the Wagner-Jauregg neuropsychiatric clinic of the University of Vienna, where the malaria treatment for paresis was first introduced, and I saw Dattner use tuberculin injections in the treatment of neurosyphilis. Rat-bite fever as a treatment for general paresis has also recently been recommended.

CARDIOVASCULAR-RENAL DISEASE

While in the Prague University clinics, I saw ureteral catheters introduced into the veins at the bend of the elbow to the right side of the heart without the slightest discomfort or pain to the patients whom I examined under the fluoroscopic screen during the operation. This may someday be used for practical purposes as a method of diagnosis and treatment.

Considerable work is now being done in the treatment of diseases of the blood vessels, and angina pectoris, particularly by French investigators.

Angioxyl, a preparation made from the de-insulinized residue of the pancreas, has been used by Prof. Henri Vaquez, Giroux, Kisthinos, Gley, Finck, and others in Paris, for the treatment of angina pectoris, coronary disease, Reynaud's disease, Buerger's disease, endarteritis obliterans, and hypertension. The

relief from pain following injections of this new pancreatic solution is, at times, remarkable. This remedy also prevents the spasm and pain following use of epinephrin for test purposes. A similar preparation of pancreatic solution has recently been used in Philadelphia with good effect in the treatment of such conditions.

During the past 2 or 3 years, Bier and others of Germany have treated almost hopeless cases of endocarditis (*streptococcus viridans* infections) and endocarditis lenta by cauterization. The "hot iron" is applied to the precordial area of the chest after a flap has been raised by incision. Several instances of recovery followed this treatment after all other measures had failed. In some of the recovered cases blood cultures were positive for *streptococcus viridans* before "Bier's brennen" was applied. The first hopeless case, I believe, which received this treatment without results in Philadelphia, was a patient in Temple University Hospital; I have no knowledge of other cases treated by this method in this vicinity.

I need not remind you of the various operations advised for relief of pain in angina pectoris and Buerger's disease, such as sympathectomy and the injections of a number of recommended remedies. Recently, particularly in French and German literature, there have appeared reports describing a heart tissue hormone under the name of *automatin*. I am not as yet willing to place much confidence in this preparation.

Mention might be made here of the use in severe and resistant cases of septic endocarditis, arthritis, meningitis, complicated gonorrhea, and septicemias, of acridin dyes, particularly solutions of trypaflavin, neutral acriflavin, proflavin, rivanol and other antiseptics, such as mercurochrome-220 soluble, flumerin, metaphen and gentian-violet, given intravenously.

Insulin has been used in cases of malnutrition and emaciation with loss of appetite, for increasing weight and as a hypotensive remedy in cases of high blood pressure. Chemical composition is still unknown. The substance

which is called *insulin* is in reality a pancreatic extract containing other extractive substances. Abel has isolated insulin in pure crystalline form. The weight of the physiologic unit of this pure form is 1/40 mgm. The commercial insulin used contained a physiologic unit in 0.015 gm.—hence, conclude Gley and Kisthinos this insulin French contained at the most 1/600 of its weight of pure insulin, the remainder being made up of other matter having some physiologic action, and it is this mixture of insulin and other substances, perhaps, that lowers blood pressure and relieves the pain in angina pectoris, vascular and hypertensive diseases. Vaquez, Gley and Kisthinos, Finck, and other investigators bringing this matter to the attention of the profession, have opened up a great field for further study and treatment of these painfully distressing and serious cardiovascular conditions.

SCLEROSING THERAPY OF VARICOSE VEINS

Pravaz, in 1851, tried caustic injections for the treatment of aneurysm. P. Linser, of Tübingen (Munch. Med. Wchschr. 66: 795, 1919), found that mercuric chloride used intravenously in syphilis sclerosed and obliterated veins, so he began its use for the sclerosing of varicose veins; later (1923) changing to 20% solution sodium chloride. This method of treatment was popularized in France by Sicard (Gaz. d. hop. 95: 1573-1575, 1922), who used sodium salicylate solution. Kausch and Nobl, and Urbach, of Vienna, and Loge-fel prefer the use of glucose and invert sugar. Kausch and Nobl, of the Allgemeine Poliklinik, in Vienna, use *calcrose*. Urbach, of the Allgemeine Krankenhaus, in Vienna, uses *varicosmon*. Varicosmon or calorse contains equal parts of 50% solution of dextrose and levulose (Wien. klin. Wchschr. 39: 1217-1219, 1926). Kern and Angle recommend the use of equal parts of 50% dextrose solution and 30% sodium chloride solution. Carter, of Green Bay, Wisconsin, (Amer. Jour. Surg., 8:551, March 1930) prefers a 75% solution of invert sugar or invertose.

From my own observations during 1929, in Austria and Germany, I can state that excel-

lent results have been obtained in the treatment of varicose veins by the use of dextrose and levulose solutions. Sugar solutions have been used since 1923. Calorose and varicosomon produce excellent thrombi. When these fail, one may use 20-35% sodium salicylate solution. Injections must not be made where the deep veins are closed or where there is an acute phlebitis.

ASTHMA

Before closing, I might only mention the splendid results obtained by Hofbauer, with whom I worked at the Wenckebach clinic (Vienna) in the treatment of asthma by respiratory exercises and special attention to proper use of the diaphragm in breathing. He has used, with much benefit in chronic asthmatics with bronchitis, intramuscular injections of *transpulmin* or *quicamphol*, *iminol* tablets by mouth, *papavydrin* tablets or ampoules, and intravenous injections of *neostrontiuran* and *stronturan* (Weil, Frankfurt a. Main, Germany). The quickest relief during attacks, of course, follows the hypodermic use of epinephrin or ephedrin, with or without intravenous calcium.

DROPSY

Finally, I believe we have in *novurit*, (theophyllin with a mercury compound) and *salyrgan* excellent intramuscular and intravenous remedies for treatment of dropsy in cases of failing heart—particularly in edema of congestive, arteriosclerotic, and syphilitic heart disease. I believe that *salyrgan* and *novurit* and *euphyllin* (metaphyllin—Berlin, Germany) are the most active diuretics we have for treatment of cardiac dropsy and selected cases of cardiorenal edema, and with the joint use of other heart remedies I have seen almost miraculous results in cardiac failure and pulmonary edema, following their use.

I have tried within the limits of the short time permitted for this presentation, to discuss briefly some of the more recent advances in treatment of a few diseases and to mention a few of the newer helps in diagnosis. May I close with Kipling's verse:

"I had six honest serving men,
They taught me all I knew,
Their names were What, and Why, and
When,
and Where, and How, and Who."

WISE BUILDER

Each day I build my happiness
Of things at hand,
Of little things that I possess
And understand.
The music of a meadow brook,
The whispered words
Of trembling trees, a friendly book
And singing birds.

I am too occupied to dream
Of days to be,
As from the ghostly dews that gleam
On grass and tree,
From clover-fields the bees caress,
From new-turned sod
I fashion me the happiness
That leads to God.

Edgar Daniel Kramer.

RESOLUTIONS

At a special meeting of the Bayonne Medical Society, held August 21, 1930, the following resolutions were unanimously adopted:

The Bayonne Medical Society mourns the loss of Archibald C. Forman, M.D., who was one of the founders of our society, Past President and a most highly esteemed member. Archibald C. Forman, M.D., a graduate of New York University Medical College, was one of the first interns of Bayonne Hospital and for over 35 years a leader in his chosen profession. He was a member of the Executive Committee of this society and at the time of his death Visiting Surgeon and Obstetrician to Bayonne Hospital.

As an early intern of Bayonne Hospital and continuously active in its progress, Dr. Archibald C. Forman will always be remembered in its medical traditions because of his pioneer prenatal achievement and the development of a modern and efficient obstetric service through his untiring and unselfish efforts.

Dr. Forman had the love and respect of his colleagues, many of whom were affiliated with him during his long and honored career, and in passing has left them a wonderful heritage; his continued desire to give unstintingly of his time, efforts and wise counsel to all perplexing cases and his good fellowship, jovialty and unbounded honesty will ever remain with us.

The Bayonne Medical Society offers its sympathy and condolence to the family of the deceased and directs that a copy of these minutes be sent to them.

William W. Brooke, M.D.

Louis E. Deary, M.D.

John W. Harvey, M. D.

Committee.

At a meeting of the Medical Board of Bayonne Hospital, held September 3, 1930, the foregoing resolutions in memory of the late Dr. Archibald C. Forman were heartily concurred in as expressive of the sentiments of this Board.

Lucius F. Donohoe, M. D.,

Medical Director.

William W. Brooke, M.D.,

Secretary.

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HENRY C. BARKHORN, M.D., Chairman, 45 Johnson Avenue, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

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All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

ECONOMIC PROBLEMS

The increasing interest in medical problems of economic character is evidenced by a number of recent happenings but is nowhere more plainly manifested than in the prominence given to such subjects at the Annual Convention of the American Medical Association. At our own State Society Annual Meeting in June approximately one-half the entire convention time was devoted to consideration of economic factors, and we have repeatedly during the past 2 years referred to discussions of such matters before county societies. In our Department of Current Events for this month we are publishing an abstract of the Proceedings of the A. M. A. House of Delegates, and therein will be found references to the Addresses of the President and President-Elect, and to Resolutions adopted by the Delegates, which deserve to be read in full as they appeared in the national Journal.

We have read and heard much during the past 2-3 years about the possible advent of *state medicine*. President Harris, addressing the House of Delegates, made specific reference to proposed establishment in some European countries of universal medical service by the government, discussing particularly a proposal made by the British Medical Association for amendment of the National Health Insurance Act so as to provide a nation-wide medical service, and to changes made or taking place in France and Germany. He renewed his own previous recommendations that component county medical societies shall

establish medical centers, under direct ownership and management of the local societies, where all classes of persons who are unable to pay the customary regular fees for professional services may be furnished with the highest type of medical treatment at prices within their means. The Editor of this Journal presented a paper upon that subject at the May meeting of the Hudson County Medical Society, which, as it was designed to do, started a lively discussion, and which will be published shortly in the hope of inciting others to expression of opinions upon the suggestion made by Dr. Harris. Furthermore, Dr. McBrayer's address at our Annual Meeting dealt in some measure with the same proposition as one means of solving some of our troublesome economic problems; and his article will also be printed in the Journal in the near future.

President-Elect Morgan devoted a considerable portion of his address to another economic aspect of practice: i. e., the proper relations between physicians and hospitals, and between hospitals and city or state governments. Under existing conditions the community's burden of caring for the indigent sick falls with disproportionate weight upon the medical profession—upon the individual physician out of all proportion to the shares borne by other citizens. Objection to this was well expressed by Dr. Morgan: "In mutual charitable undertakings for care of the sick, each citizen contributes what he has: laymen, physical necessities; the physician,

professional skill. But, each has the right to protect himself from exploitation and to judge of the merit of the recipients of his bounty." You will observe that he covers 2 serious problems. Through mismanagement, or misapplication of hospital facilities, physicians are often compelled to render free service to persons who they believe are able to pay something for such service. Secondly, the physician, like the pharmacist, grocer, butcher or coal dealer, pays his full share of taxes for the support of hospitals; but, all of these other professional or trades men receive pay for any services or supplies furnished the institution, or its sick inmates, and only the physician is expected to render, in addition, his services without compensation.

What may prove to be a very important step taken by the A. M. A. at the recent meeting was adoption of a resolution for establishment of a Bureau of Medical Economics to function under direction of the Board of Trustees. This appears to us a procedure fraught with great possibilities. The time is propitious for an organized, systematic and thorough investigation of many economic problems affecting professional life, but much will depend upon sane guidance of the study and upon securing a competent, energetic leader to head the bureau.

CHARITY—OR PAY CLINICS?

In the August Journal we presented a very interesting article by Dr. Linn Emerson, in which he offers a novel solution for one of the economic problems of medical specialists, i. e., the conducting of pay clinics in the offices of individual practitioners. His suggestion will doubtless arouse some discussion, perhaps some criticism, but we hope he will put the suggestion into effect, in the form of an ophthalmologic clinic, and in due course of time publish the results of his experiment. We see no serious objection to his proposed plan; indeed, we look upon it as a rather good idea and believe it is based upon logical argument and is bound to succeed. Pay clinics conducted by groups of hospital physicians have been accepted as perfectly ethical. Why

should not any member of such a group be at equal liberty to practice in like manner and upon a similar basis at his own office; at least where his specialty is so nearly a self-contained and limited one as is ophthalmology? In so far as pay clinics were designed to cover group practice or complete physical examinations, there may be, of course, grounds for a different opinion. We learned years ago from practical experience that a goodly percentage of patients attending the dispensary services of Johns Hopkins Hospital did so because of the reputed skill of the physicians operating in those clinics and because they could not afford to pay the regular office fees of said clinicians; they had no real desire nor intent to "beat" the physician or institution—would have preferred, in fact, to pay what they could afford for treatment received—but they did want the best medical advice and care available and would accept it as charity rather than go without or purchase what seemed to them an inferior service. Who can blame them? The profession has but injured itself in not sooner recognizing and providing for this class of patients.

Incidentally, Dr. Emerson's article is deserving of consideration in connection with our preceding editorial, for he helps to clarify one of the important points made by Dr. Morgan with regard to the relation of physicians to hospitals. "The butcher, the baker and the grocer do not furnish the poor with food gratis. Why, then, should the medical profession bear the burden of medical charity?"

Every true physician is happy to do his full share of charity work, happy to contribute in any manner toward the relief of suffering humanity, but we doubt not that all would be glad to rid themselves of the incubus of over-charging the well-to-do if they could be relieved of compulsory free service to the poor. There is one alluring feature to the much talked of *state medicine*, in that when the state comes to employing physicians to conduct both preventive and curative medicine it will per force lift this charity burden from the shoulders of the profession and place it, where it rightly belongs, upon the shoulders of the entire community.

Collateral Reading

THE MASTER OF DESTINY

By Frederick Tilney, M.D.

(Review reprinted from the Saturday Review of Literature, April 26, 1930.)

This book by Dr. Tilney, with a Foreword by Dr. Riggs, is an attempt to trace the evolution of the brain from its appearance in the animal world up through the lower organisms to man's ancestors, and then on to man himself. It is a readable, creditable, and authoritative summary of organic evolution, more in particular as indicated by brain development.

While many of the chapters are occupied with the rather unromantic recital of animal evolution, here and there interesting bits of information are afforded, while the chapters dealing with man's simian cousins, especially monkeys, oranges, and gorillas, are unusually interesting in that they present many actual cases showing intelligence and near human behavior on the part of the chimpanzees and gorillas.

Dr. Tilney expresses the view that evolution may not be finished. He calls attention to the fact that man's survival has been due primarily to the development of a superior brain. This, in connection with the human hand and foot, insures man's domination of the earth. The author expresses the belief, at least the hope, that the human brain, having reached its present stage of evolution, will be able to cope with the difficulties now besetting the race, and discover for mankind ways of living and progressing in the future, and he even intimates that the physical brain itself may be capable of further and favorable evolution which will contribute to racial progress.

While this is a book dealing with organic evolution, particularly as indicated by brain development, the author has escaped that crass materialism which has unfortunately dominated some evolutionists. Dr. Tilney seems to have joined the ranks of that increasing host of scientists—and great scientists—who have begun to cultivate a spiritual outlook for the human race. Some of the greatest scientists of today have delivered themselves of declarations which forever remove them from the ranks of the materialists, and it is further refreshing in this mechanistic age to have the author close his book—which so carefully sketches man's rise up through the lower animals, the Pliocene, the Neanderthals, the Cromagnons—we say, it is distinctly refreshing to find this popular work on evolution,

designed for the layman, close with the following paragraph.

"Whatever fault may be found with the technic of human living, the major complaint is directed against the persistence of the old objectives. Ancient motives and standards are obstacles in the path of progress. A less complex life is needed—one with new incentives and different goals. Many are living and have lived this kind of life. One among these, the Great Galilean, has made it exemplary. As its influence comes down through the Christian centuries this life brings increasing conviction that it is the best yet lived. One-third of the globe's population professes to follow it. As followers they are frustrated in their purpose by the persistence of more ancient influences of the past. Yet it cannot be denied that any order of humanity higher than the present one requires extensive modifications in our purposes, our desires, our outlook on life, our manner of self-expression. A long step in this direction will be taken when the ancient password of the Old Stone Age—*get*, which for thousands of years has been the main-spring of existence, is gradually subordinated by the keynote of a New Golden Age—*give*. This solution of the problem is likely to seem Utopian. Long ago we were admonished to try it. If we have failed we need not altogether despair. The human brain has overcome other difficulties to which it has been applied. With all of its possibilities for improvement, it may in time solve the supremely difficult problem of human nature. Success such as this depends upon the further development of science—especially that comprehensive science which will deal with all of the principles underlying the behavior of man."

Economics

"SURGICAL JUDGMENT" FAIRLY JUDGED!

Fred R. Fairchild, M.D.,
Woodland, California

(Reprinted from Medical Economics, March 1927.)

The unexpected interest and discussion that followed the reading of an essay on "Surgical Judgment" before the California Medical Association in 1925, and the many queries that have come since the article was published in the April number of California and Western Medicine for 1926 seem to justify its further consideration.

The title "Surgical Judgment" was, frankly,

a deliberate misnomer in so far as the real motive for the paper was concerned. It served the purpose of getting before the Surgical Section of the Association certain facts that the author considered of vital importance. Relieved of the handicap of attempting to write to a title, the intent of the essay can be more clearly set forth.

With full appreciation of the great advances made in medicine and surgery in recent years and recognizing and honoring the honesty, earnestness and efficient purpose of the majority in the regular school of medicine we nevertheless see within our organization indefensible conditions—conditions that tend to discredit every one of us in the minds of the laity. The conditions are correctable. They are the results of motives commendable, but misguided. Believing as we do in the principles and practices of medicines according to our time-honored code of ethics, what more natural than that we should continue to apply this code to the letter instead of permitting our professional conduct to be directed by its spirit?

The code is intended to operate in the interest of the patient. If its application is in contravention to his greatest good it is untenable. If one of our own profession is for any cause unable to perform the duties of his calling with full justice to the patient, the spirit of this document certainly does not demand that his confrères uphold him. Yet for ethical reasons we do keep silent. This silence is a tacit approval and the inevitable consequence of the mistreatment is, not a loss of confidence in the individual, but a loss of faith in all physicians of the school who silently approved that which was wrong.

The paper on "Surgical Judgment" was intended to emphasize the truth that judgment was fundamental in surgical procedures and that it could only be exercised after certain ascertainable facts were known. It was pointed out that, beyond dispute, a great volume of surgery was being done without any attempt on the part of the operator to obtain these facts. The conclusion was that sound surgical judgment did not play a part in such procedures, with the result that there were unnecessary surgical deaths, and an even greater number of operations that were, if not distinctly harmful, at least without benefit to the patient. The paper made it clear that these criticisms were not directed toward the competent and honest surgeons, but that it was a matter of common knowledge that there were many entitled to all of the privileges of our profession who were incompetent. It was suggested that this in-

competency resulted from lack of primary training, from inertia or deterioration, or from dishonest and mercenary motives, but that the unfortunate effect on the reputation of the honest and competent was the same in any case.

It was admitted that these incompetent and dangerous men were legally entitled to practice medicine and surgery, and it was suggested that if the privilege of exercising this right could be given by an authority there should be an authority with power to revoke it on evidence of continued abuse of the privilege, even though this abuse did not constitute an actual infraction of the law. If one of our confrères be honest, but lacking in capabilities, we may sympathize with him, but should we uphold him in his misdirected efforts? The fact of his honesty of purpose does not save the patient, nor does it protect the reputation of his competent associates.

The patient judges all of us by the efforts of this one man, and why not, since we continue to give the stamp of our approval! If by reason of dishonest or mercenary motives his work does not pass muster there can be no defense, and unfortunately on the part of our organization there is little effective offense. That is one of the fundamental reasons for the laity's lack of confidence in the regular medical profession. The incompetent undermine the competent. At the same time they build up the charlatan.

A method so devised that the public will be able to distinguish the wheat from the chaff in the regular medical society will mean more in practical accomplishment than all of our legislation against the fakirs.

The solution of the problem, as the author of "Surgical Judgment" saw it (and still sees it) was in elimination of the element of secrecy. To quote from the paper:

"The first step in the solution of this problem will be in the formulating of some plan—legislative or otherwise—whereby the responsibility of procedure will be fixed definitely where it belongs, viz., upon the operator. Every individual by law made eligible to operate should by law be required to keep records of his cases. These records he should be compelled to submit, on request, to the inspection of some competent constituted authority for review. This would work no hardship and could entail no embarrassment on the competent surgeon. It would strengthen and protect him. It is obvious what the effect on the incompetent and dishonest would be. His exposure would be inevitable and his ultimate downfall a certainty. Institutions entirely mercenary and operators devoid of con-

science do not trouble with expensive details, serving no purpose except the minor factor of safety to the victim. Institutions and men in this class will not, because they cannot, produce records to uphold them in their work. The factor of individual responsibility properly applied would be conclusive."

It is unfortunate when necessity arises for legislation to direct the affairs of a scientific body. Politics and science mix not at all. But unless we ourselves set our house in order the time is not far distant when more or less well-meaning legislators will attempt to do it for us, and when they do much valuable furniture will be broken. And it is certain that the surgeon will soon be made accountable for his procedures. *At present he is an autocrat.*

To quote again from the original paper:
"One may administer the physical estate of the deceased. Does the court accept the executor's statement that he had done it honestly and well? The court does not. Records are checked to the last dollar. The material estate of the deceased is safeguarded. How much more important when a life, not an estate, is at stake! But is there a similar check on the competency or honesty of the surgeon? There is not. Practically, he may do as he pleases with the body of the sufferer, without a line to prove that he has acted wisely or well. The presumption is that he is honest and competent. Some could not qualify on either count."

Esthetics

THE PHYSICIAN AND LITERATURE

Irving S. Cutter, M.D.,

Chicago

(Abstracted by the Editor, from Illinois Med. Jour., August 1929.)

Practice of the healing art, day in and day out, is arduous in the extreme—monotonous, deadening to some, a routine to others, to still others a task enlivened with intense interest—each case presenting a new and different problem. To the man who has much within, interest in patients never flags, and it is only to the man who is ceasing or has ceased to be a student that routine practice becomes a drudgery and patients are visualized only as one unhappy individual after another. I have no panacea—no cure-all—but only a suggestion which may take the professional man a

bit out of his routine, stimulate anew the student spirit, and illuminate his daily tasks with a new and clearer understanding.

Osler early saw the importance in his own career of going thoroughly into the history of disease, and everyone knows how Osler, through his enthusiasm for historical study, not only maintained a youthful outlook upon medicine, but became an outstanding, international exponent of the historical approach to the study of disease. To him historical medical studies furnished mental relaxation and real fun.

Turn a few pages in Osler's "Alabama Student" and read his incomparable essay on "A Backwood Physiologist", William Beaumont. Here are portrayed scenes and shrines sacred to every follower of the healing art, particularly to those of us of the lake region where William Beaumont spent so many years of his life at frontier military posts—Michilimacinae, Green Bay, Michigan, Fort Crawford on the Mississippi 2 miles above the mouth of the Wisconsin River, and Jefferson Barracks, St. Louis. At these posts there was stationed at various periods the studious young army surgeon who improved an opportunity to make what at that time proved to be the outstanding advance in gastric physiology. Osler tells the tale entrancingly and his excerpts from Beaumont's published report are well worth reading. One of my choicest possessions is a copy of the original 1833 Plattsburgh edition of Beaumont's "Experiments" in the original board binding and with the paper label still adhering to the back. Suffice it to say that Beaumont's work which lives with the reading of Osler's essay, directed more attention to American medicine than all of the clinical observations and vigorous polemics of Benejamin Rush and his contemporaries.

Find, if you can, a copy of the New England Quarterly Journal of Medicine and Surgery of 1843, or a later republication of the essay in "Currents and Counter-Currents", and read therein the forceful logic of Oliver Wendell Holmes pleading the cause of the poisoned women against the ignorance of midwives and practitioners of the obstetric art. Long before the dawn of bacteriology and the clinching of the doctrine of infection, Holmes, by consulting the records of observers who had preceded him, with his own experiences and those of his friends and colleagues, set forth the cause of the expectant mother with a clarion note. When Holmes was asked later in life whether he would rather have written his essay on puerperal fever or the "Cham-

bered Nautilus", he replied that while the latter was a favorite poem of his, he would rather be known to posterity as the man who had fought the cause of the poisoned women.

If indeed your interest has been aroused by this forceful essay, and if you care to follow the matter further, secure from almost any medical library a copy of the report of the Dublin Lying-In Hospital under the master-ship of Robert Collins and you will read there of the delivery of over 10,000 women by the use of modern cleanliness, the "stoving" of mattresses and bed linen, the sterilizing of the wards and ward utensils with chlorinated soda, and this without a single death from puerperal fever, and it all happened 20 years before Semmelweis in the Vienna-Frauen Clinic advocated the riddance of cadaveric infection by means of chlorinated water.

If your interest has not as yet been in the slightest degree aroused and if you have a poetical bent, read Osler's essay on John Keats, the apothecary poet, the English lad of humble parentage who became the singer of songs in verse, the choicest that England has ever produced. John Keats at 15 was indentured as a surgeon's apprentice, which career he pursued for 4 years, later becoming a student at Guy's and St. Thomas' Hospitals and all the while, as it was said, wasting his time writing poetry. While employed in the apothecary of one of the leading English hospitals, he published his first small volume of poems. So immediate was the success of this tiny volume that a year later another appeared. Who will begrudge the loss to surgery and to the apothecary shop of John Keats since the world is so richly the gainer by his literary outpourings. Mr. A. Edward Newton tells in his "A Magnificent Farce" of a visit to Amy Lowell. Here are several sonnets of Keats and the original manuscript of "The Eve of St. Agnes", Miss Lowell will say, placing them in your hands, and you will feel a gentle thrill as you turn the soft pages, remembering that you are gazing upon immortal poetry.

If your interest in Keats is not thoroughly assuaged, read Amy Lowell's 2 volumes on John Keats for the truest appreciation of this young English lad who too soon succumbed to tuberculosis. Perhaps from John Keats we may extend our interest to his friend Shelley and thus have an acquaintance with the 2 outstanding poetical geniuses of the early nineteenth century.

Some years ago, in a copy of the Strand Magazine, I saw a statement by Dr. Conan Doyle (now Sir Conan Doyle) to the effect

that the original of his "Sherlock Holmes" was his old professor of medicine at Edinburgh, Dr. Joseph Bell. He says: "I was a clerk in Dr. Bell's ward. A clerk's duties are to note down all the patients to be seen and muster them together. When everything was ready I would show them in to Dr. Bell, who would have the students gathered around him. His intuitive powers were simply marvellous. Case No. 1 would step up. 'I see', said Dr. Bell, 'you are suffering from drink, you even carry a flask in the inside pocket of your coat.' Another patient would come forward. 'You are a cobbler, I see.' Then Dr. Bell would turn to the students and point to them that the inside of the knee of the man's trouser was worn where the man had rested the cobbler's lapstone. All this impressed me very much. He was continually before me, his sharp, piercing, grey eyes, eagle nose and striking features. He would sit in his chair with his fingers together and just look at the patient before him."

On reading the above I was tremendously interested in learning more of Dr. Joseph Bell and curiously enough, ran onto a sketch of the "Life of Joseph Bell", published in Edinburgh in 1913. Dr. Joseph Bell descended from a long line of physicians. His great grandfather was Benjamin Bell, who wrote rather widely on vaccination. His grandfather was Dr. Joseph Bell, a distinguished anatomist, and his father, Dr. Benjamin Bell, was one of the ablest physicians of Edinburgh of his time. It appears from the short biography, that Dr. Joseph Bell was not particularly proud of the reputation he had acquired as the original of Sherlock Holmes. That his teaching gave birth to Conan Doyle's character there can be no doubt. In one of his essays Dr. Joseph Bell says:

"The recognition of disease depends in great measure on the rapid appreciation of small points in which the disease differs over the healthy state. In fact, the student must be taught first to *observe carefully*. To interest him in this kind of work, I found it useful to show the student how much a trained use of the observation could discover in ordinary matters such as the previous history, nationality and occupation of the patient. Nearly every experience writes its sign. The scars of the miner differ from those of the quarryman. The carpenter's callouses are not those of the mason. The shoemaker and the tailor are quite different. The soldier and the sailor differ in gait, though last month I had to tell a man who said he was a soldier that he had been a sailor in his boyhood.

I regarded Conan Doyle as one of the best students I ever had. He would never tire of trying to discover those little details which one looks for. I recall that he was much interested in a patient who walked in and sat down. 'Good morning, Pat', I said, for it was impossible to overlook the fact that he was an Irishman. 'Did you like your walk over the links as you came in from the south of town?' I asked. 'Yes', said Pat, 'did your honor see me?' Conan Doyle was tremendously puzzled, and after himself interrogating the patient at considerable length, wanted to know how I had made the observation. On a showery day such as that had been, reddish clay on the bare parts of the links adheres to the boot and there is no such clay anywhere else around the town for miles. That and other similar instances set Conan Doyle experimenting himself in the same direction, which, of course, was just what I wanted."

The story of the discovery of anesthesia and its surgical applications constitute a thrilling though a tragic chapter in the history of American science. To know the parts played by Horace Wells, Crawford W. Long, Morton, Jackson and others will well repay the time spent in such a study. Pursue the study of the history of anesthesia to the laboratory assistant Humphrey Davey and his employer, that quaint and queer Dr. Thomas Beddoes, and it will lead to an acquaintance with Erasmus Darwin, Coleridge, Wadsworth and scores of literary and scientific celebrities.

Another poet-novelist-physician was Tobias Smollett, whose poetic satires and distinctly artistic portrayal of contemporary British character will be read as long as time endures. Dr. John Moore's correspondence with Burns has retained for us more of real insight into the character of Burns than has come to us from almost any other source, and then we must not forget that it was Dr. James Currie, of Liverpool, who assumed the arduous task of writing Burns' biography. Currie, it will be recalled, was the first to advocate stoutly the use of cold water in fevers. Our own S. Weir Mitchell, we must not fail to mention. A true student of the history of medicine—a follower of Charaka—he has given to American literature essays, poems and novels of enduring character, all of which will repay thorough reading; a scholarly man who in a busy professional life found time to write a group of historical novels. His "Fat and Blood" will be read by present-day students of medicine as a medical classic.

It would be as unbecoming as ungrateful to fail to mention the editors of our medical

journals. Theirs is generally a thankless task and so we would recall with gratitude the work of such pioneer editors as Dr. John Redman Coxe, Dr. B. S. Barton and Dr. Minis Hays, of Philadelphia; Daniel Drake and John D. Goodman of Cincinnati; Charles W. Short and John E. Cooke of Lexington, Kentucky; Samuel L. Mitchell, Elihu H. Smith and Edward Miller, of New York; and without unduly extending the list, John Evans and Nathan S. Davis, of Chicago. Medical journalism has proved a potent factor in moulding physicians into a thinking, progressive profession. Witness the powerful position occupied by the Journal of the American Medical Association, and the growth in influence and prestige of the several state journals, many of which take high rank as true exponents of scientific medicine.

Medical Ethics

THE ETHICS OF HEALTH

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, New Jersey

No doctor of experience will call this title fantastic. As a rule, people of good habits, and of good nature, have good digestion and good health. The farmer will tell you that a horse that empties his nose-bag, or his manger, is a good worker, a good driver, and a good piece of property. The human biped is no exception. One's physical health determines one's mental and moral slant. Behaviorism, while influenced by heredity, is also greatly influenced by environment; and degeneracy of the physical environment is wretched environment indeed.

On August 7, 1930, there appeared in the United States Daily (Washington, D. C.) a most interesting short article by R. L. Leybourne, M.S., Bacteriologist to the Board of Health, State of Missouri, touching on our health breakdown from bad teeth; and although many of us consider this a thrice told tale, the time is well spent if we now review portions of this article.

"There is more physical degeneracy due to neglected teeth than to the abuse of alcohol", asserted Sir William Osler (in pre-prohibition days).

Yet you have never heard of the organization of a league, of the collection of funds to be used in interfering with the personal lib-

erty of those misguided souls who choose to endanger their health and limit their usefulness by struggling through life with a mouthful of dirty and decayed teeth!

Dr. Osler's statement was no idle remark, as the hospital records of one large medical school show that 12% of the patients undergoing treatment during a 2-year period were admitted because of disabilities caused by infections of the mouth.

"Be true to your teeth or they will be false to you."

"Store teeth" are one of the least objectionable manifestations of this infidelity. A decayed tooth is a splinter in the finger. It may cause local discomfort with the result that food is not properly masticated, and the individual has indigestion; or it may become infected and then, like the hollow tooth of the venomous snake, it pours poison into its victim which is carried to all parts of the body by the blood with unfortunate and sometimes disastrous results in the form of heart disease, ear and kidney infections, rheumatism and other troubles.

"Nature's food chopper is a germ paradise! Look at some tartar from the teeth under the microscope, and you will be astonished at the number and the variety of specimens included in the menagerie of the mouth."

"These germs need food, moisture and warmth, and when they find a neglected mouth, they set up housekeeping and raise large families. They do not break down the enamel of the teeth themselves, but when food particles are allowed to remain in the crevices about the teeth, these bacteria ferment this material, and the acid that is formed in the tooth completes the destruction."

Now the writer is holding no special brief for the dentists. If physicians could limit their work to a portion of the human anatomy the size of a large teacup, intensified study and work on that locality ought to produce near perfection in technic and accomplishment. But there is no call for dentists to have delusions of grandeur! Neither is the writer asking the dentists for a gentler touch (physical or financial). That is *their* business. A straining for superfinancial results often defeats itself. Dentists are just as human as those in the profession of medicine, and have the highest ethical reactions.

We should all pull on the same rope or tooth and be constantly aware of the great privilege of helping each other.

In Lighter Vein

Tropical Finery

From a little narrow white or cream lace and a few inches of pastel-colored ribbon you may make the most attractive frock.—Vancouver Sun.

Try Chloroform

Pretty Nurse—"Every time I take the patient's pulse, it gets faster. What shall I do?"

Doctor—"Blindfold him!"—London Everybody's Weekly.

Time to Hoof

He—"Do you indulge greatly in terpsichorean art?"

She—"Oh, why bother about such things. Let's dance!"—Passing Show (London).

Own Up, Old Top!

Mr. Beard—"I want something to wear around the dormitory."

Salesgirl—"How large is your dormitory?"—Rammer Jammer.

Call the Board of Health

Night-Club Habitué (staggering out of dive at 4 a. m.)—"Good Lord, what is that strange odor around here?"

Doorman—"That, Sir, is fresh air."—Humor, quoted by The Lampoon.

Nature Hint

Another good place for a zipper would be on string beans.—Life.

More Team Play

"Is your wife having any success in learning to drive the car?"

"Well the road is beginning to turn when she does."—Toronto Goblin.

Company

Many a husband, in a family fight, is saved by the bell.

Off Schedule

Yokel—"When will the 8:20 train be in?"

Agent—"About 8:35."

Yokel—"Gosh, it's early today."

All Explained

"Don't you think the water is awfully hard here?"

"Yes, but it rains harder here."—Wisconsin Octopus.

Not So Bright

There had been a motor wreck. One of the drivers climbed out in a fit of temper and strode up to a man standing on the sidewalk, thinking him to be the other driver.

"Say, where is your tail light?" he roared. The innocent bystander looked up at him. "Wot do you think I am—a bloomin' lightening bug?"—Humorist (London).

Lighthouse Observations

THOUGHTS ON ANGINA PECTORIS

In an address to the Utah State Medical Association, July 3, 1929, Professor William S. Thayer discussed Angina Pectoris from all angles—beginning with definition of the term—and his lecture is well worth reading in its entirety (California and Western Medicine, 32:217, April 1920) but that portion of his remarks bearing upon treatment seems to us so very important, so practical and so humanly helpful that we shall limit this abstract to that single feature, and present it rather fully:

REFLECTIONS AS TO TREATMENT

"But in this informal talk I want to dwell especially on the question of how we may help the sufferer from angina pectoris. Years ago, in speaking with my dear and wise old instructor, Dr. Frederick C. Shattuck, of Boston, I observed that I always felt depressed and discouraged when I saw a patient with angina because there was so little that I could do. He laughed and said, in effect, that there were few conditions in which he felt he could do more. As the years have gone by I have come to realize fully how wise he was and how innocent and young I was. One can do much for many patients with angina; indeed the ability to help a patient with angina is a rather good test of the quality of the doctor. 'Tis a familiar truth and nowhere is it more apparent than in conditions such as this, that the wise physician accomplishes more by his kindly and intelligent advice and counsel than he does by his prescriptions and his medical treatment. The treatment itself varies greatly with the condition in which we find our patient, but under nearly all conditions the personal element, the tact, the judgment, the kindness of the doctor, his willingness to take time to explain matters properly to his patient, to break unpleasant truths to him in such a way that he will look upon the hopeful side—these are often the most important elements of treatment. This applies equally to the family practitioner and the consultant. One cannot treat the patient with angina pectoris without giving him time and careful consideration.

Suppose a man comes to us, as he commonly does, when he begins to observe that effort produces unmistakable anginoid symptoms.

There is no more fascinating opportunity than that afforded by this situation, to relieve suffering and to prolong life; but it is a time-taking procedure. To begin with, to attempt to hide the nature of his condition from such a patient is silly, and certain to defeat our ends. Does that mean the necessary employment of the word 'angina'? Of course not. The word 'angina' is the very thing that we are seeking to avoid. We are trying to escape from the tyranny of alarming words, and to express the essence of the situation in such manner that it may encourage rather than depress the patient. In most instances this is quite possible to accomplish. But it demands time, time and careful explanation—explanation of the nature of the situation; that it is a warning, a red flag, and not a 'smash-up'; that it is evidence of some defect in the circulation in his heart muscle; that it is the first notice which every man must have at one time or another, that, physically, he is not in the best condition; that every man of his age has some bad vessels; that many of us have the good fortune to have these in positions where

they do no harm; that he, perhaps, has had bad luck, but that, after all, the warning may be rather a bit of good fortune than otherwise. And here I often refer to Osler's paper on 'The Advantages of a Trace of Albumin and a Few Tube Casts in the Urine for a Man Over Fifty Years of Age', a diversion which often amuses and encourages the patient, at the same time impressing on him the truth. Or again I tell him, that he is somewhat in the position of the patient with early tuberculosis, whose first symptom is an hemoptysis, often the most life-saving of incidents in that it draws attention to the existence of pulmonary mischief amenable to treatment, mischief which might otherwise be overlooked until too advanced for relief.

Here the value of experience becomes especially appreciable. We should preserve with the utmost care the records of the occasional medical miracles with which we all meet, and of the especially favorable cases in our practice. These will be among our most precious implements in the treatment of angina; they will be more valuable to us than most drugs. A true story of someone who has recovered from a like condition is often almost life-saving to the sufferer. He forgets everything else but the picture of that patient who recovered and soon, in his own heart, he comes to fancy that this perhaps may be the rule rather than the exception.

Only the most confirmed Christian Scientist exaggerates the importance of faith and hope in the practice of medicine.

In almost every instance of angina one is justified in encouraging the hope that if all goes well the patient may either recover entirely or at least be able, with certain reasonable modifications of his habits, to go on for a long period. It is a careless and sloppy method of practice to satisfy one's self by a few words with the patient, and by the statement that this is 'false angina' and not 'true angina'. What we are trying to do is to escape from the dominion of terrifying and misleading words, and the words 'false angina' produce in the patient's mind the picture of something as definite as his mistaken fancies concerning the meaning of 'angina'. Merely to give one's symptoms a name does not mean much. If one can make his patient feel that the word 'angina' does not mean a sentence to suffering and death, but only describes a certain set of symptoms which vary enormously in their intensity and prognosis; that there is a considerable element of hope in his case, you can do far more for him. One must remember that the essential feature of our treatment should be to encourage him to modify his life as he should; one can accomplish this only if the patient realizes the necessity.

And now after one has talked to him and encouraged him and led him to feel that what has happened may be hard luck, but not the end by any means, that it may indeed lengthen his life by inducing him to lead a proper sort of existence, after all this, what else have we that we can do for a patient with beginning anginoid symptoms? We can, it seems to me, do a great deal.

(1) One must put the patient into the best possible physical condition. To do this we must carefully go over his manner of life. We must find out just what it is. Very often we find that he leads a disordered and hurried life. We must begin by inquiring into the character of his day, and these inquiries we must make not only of himself, but of his wife and others who observe him. We must see to it that he begins the day without hurry; that his habits are regular; that he takes plenty of time for his meals; that he eats

deliberately and, of course, moderately; that he avoids constipation, and this is a matter often that needs the most careful attention and is very time-taking for the physician, for the treatment of constipation does not consist in simply prescribing a laxative. We must look carefully into his habits in view of the possibility that he may be subjected to some of the toxic influences which have been thought to play a part in inducing angina. Gout is certainly of importance. Tobacco may be of importance; it is certainly in instances of hypertension. While I, myself, have never seen an instance of angina which was definitely 'cured', if one may use the word, by the omission of tobacco, I am sure that I have seen great benefit in some cases of nervous, heavy smokers, from the abandonment or modification of smoking. If the patient be one of those unfortunate, weak-minded invertebrates, of whom there are too many in the world, who 'simply can't stop smoking', who cannot refrain from making himself a nuisance to his fellow man by standing around, red-eyed and 'frowsy' headed, while he smokes his cigarette in the crowded dressing room of a sleeping car before he can begin his morning toilet, there is but one thing for him to do, and that is to stop it. Every man of that sort has a serious drug habit. If he is obviously smoking too much, and is a man, he should learn to smoke in moderation and only at leisure after his meals.

Every effort must be made to induce the patient to avoid hurry. A hurried day is often initiated by habits of rising and dressing in a few minutes. Some patients, if taught to realize this, may learn to add a quarter or even a half an hour to their dressing time, to read the paper during the hours of dressing, and arrange matters in such a way that, the initial hurry avoided, the day goes on with a calm with which they have been previously quite unfamiliar.

In order to put one's patient in the best possible condition the importance of searching for and relieving focal infections cannot be exaggerated. It is often impossible to say that the relief of this oral sepsis or that chronic prostatitis has been the cause of so much improvement, but there is no doubt whatever that occasionally the influence of focal infections, apparently unimportant, is far-reaching. I have had one instance of the disappearance of an angina following a tonsillectomy for good cause. The improvement, of course, may have been *post hoc* rather than *propter hoc*. However that may be, the incident is true, and so worth heeding, while from a therapeutic standpoint this experience has been of considerable value in helping me to induce patients to do what it seemed to me they should.

I am very apt to end my conversation with a patient of this sort by reference again to Osler's habit of speaking of the advantages of a trace of albumin in the urine for a man over 50. 'But', one may say, 'suppose this man asks you about sudden death?' That is a bugaboo which, with most patients, is dealt with very easily. It is not the patient who is annoyed about that; it is the family. To the patient who asks you it is easy and true to say that he has a somewhat better chance than the average man of dying the most blessed sort of a death. That, alas, is about all, because many sufferers from angina die in other ways. Too many, alas, go through the distressing stages of progressive myocardial failure. It is not hard as a rule to make one's patient look at the possibility of sudden death as a blessing rather than a menace.

The medical treatment of such a patient, beyond special emergencies, is symptomatic. If the

patient be syphilitic he has, of course, a door of hope, but syphilis is not the common basis of angina. In syphilis it is exceedingly important to begin treatment with mercury and iodides, and not to use intravenous arsenical treatment until later. I have not happened, myself, to see sudden death follow the abrupt use of arsphenamin, but I have seen what seemed to me grave, immediate reactions.

The treatment of constipation I have already referred to. The treatment of the attacks may be summarized in 2 words—'nitrites, morphia'. The nitrites often produce the desired result. It is only in the grave spasms that morphia is necessary when, of course, it should be employed freely.

I feel, as does Harlow Brooks, that either tablet triturates of nitroglycerin or liquid tincture of glonoin are the best forms in which to employ the nitrites. They are usually as good as nitrite of amyl. The nitrites should be employed symptomatically. Continued employment seems to me quite useless. The dose may be increased as is necessary. It is a great relief to many individuals to feel that they have in their pockets a ready relief of this sort. Other drugs, of course, help, but the nitroglycerin is so much simpler. Still one must not forget that it is very hard to make any absolute rule in medicine, and sometimes, where nitroglycerin, even in small doses, brings on uncomfortable flushing, other preparations such as Hoffman's anodyne or sweet spirits of nitre may help.

I have a dear friend who always carries in his pocket a lovely cut-glass cornucopia-shaped receptacle with a silver top—a receptacle which must have been intended, I should think, for smelling salts. This receptacle contains about 2 ounces of *spiritus frumenti*. A little straight whiskey stops the attack and the patient who, beside being a temperate man, is one of the most distinguished of our colleagues, ought to know. There are some advocates of temperance who call themselves Christians who might disapprove of this; but there is no intemperance more blind or more cruel, no immorality more pernicious than that practiced by some well-meaning fanatics in the name of temperance and morality.

If the patient be hypertensive or obese these conditions must be considered and properly combated.

(2) If the attacks become more frequent or, of course, if one finds his patient in an attack suggesting a coronary thrombosis, or indeed, if, in a progressive angina, the signs of myocardial failure come on, then the urgent need is for rest—a long rest. What is the value of rest? In an acute cardiac infarction or with a myocardial insufficiency the value of rest is obvious. By saving every heart beat the heart muscle is given an opportunity to regain strength; the circulation about an area of infarction may have a chance to become reestablished so far as possible; the heart is submitted to the least possible strain while the softened area is becoming scarred. In instances of angina where the attacks are becoming more frequent, a rest treatment is often of great value not only in that it spares an exhausted heart unnecessary beats, but in that it gives the patient an invaluable opportunity to adjust himself to the proper manner of life.

Under such circumstances what does one mean by rest? At what should we aim? Rest in bed at home? No. That is but a halfway measure. If it be possible the patient should be at rest in a hospital, wholly separated from his affairs, or if it must be at home, he should be isolated and under the care of a nurse. The patient almost

always asks why home is not just as good as a hospital. Although he protests, it is usually not so very difficult to explain the situation. Few busy men can rest, really rest, at home. How many of us have tried to retire to the upper floors of our house and sought to spend a few days entirely freed from the cares of everyday life? How impossible it is! Every ring of the doorbell, every rattle of the telephone, suggests forgotten duties. The moment we are left alone we desire to get out of bed to arrange this or that little thing which must be done before the rest really begins, and the rest never comes. More than that, at home one has a sort of a right, or at any rate feels a sense of duty, to direct or advise or meddle with a thousand little things. In a hospital, or if impossible, so well as one can at home, the patient should be guarded from every interruption. He should be guarded entirely to throw aside his business affairs.

Medically we know only palliatives, but our general management of the case may bring about practical recovery for considerable periods of time. There is no condition where the skill and judgment of the physician come into greater play.

As I have said elsewhere, the management of the family is the most difficult problem. The patient is usually one's best confidant. The family is very hard to deal with and it is in their power to make the patient's life utterly miserable. One must seek by every conceivable means to induce the family to let the patient alone, and never, by word or act, to show their anxiety. To do this is not always possible. Too often a loving but ill-balanced wife or husband, by constant manifestations of anxiety, may ruin the life of the patient."

Public Relations

THE MARCUS L. WARD HOME

Our attention has recently been directed to the existence of the Marcus L. Ward Home for Aged and Respectable Bachelors and Widowers, and the Secretary of that corporation, Mr. Frederic V. Pitney, has supplied us with the history of the institution and granted us the privilege of publishing this story with a view to informing the medical profession about this excellent "home" available to aged physicians who may be in need of such accommodations and who may qualify for membership. Some of the officers of the State Medical Society have visited the home and give an unqualified endorsement to the aims and objects of its Founder and speak with enthusiasm of the beauty and character of the home itself. We present this article for the special consideration of any of our readers who may chance to know of a bachelor or widowed physician in need of such care and comfort in his declining years as this home offers.—Ed.

The Marcus L. Ward Home for Aged and Respectable Bachelors and Widowers, founded and endowed under the will of the late Marcus L. Ward as a memorial to his father, Governor Marcus L. Ward, is situated on Boyden Avenue, near the corner of Springfield Avenue, Maplewood, New Jersey.

It was opened for the admission of guests August 31, 1927, and has accommodations for 80 men.

The Home is intended for the comfortable maintenance of aged and respectable white bachelors or widowers over 60 years of age who have been

bona fide residents of New Jersey for 10 years preceding admission, and who, through misfortune, have lost the means they once had for their own support and have become wholly or partially unable to support themselves.

Applicants must be temperate, of good habits generally, and of a reasonable and amiable spirit and of good character and reputation. Preference will be given to those who have been sustaining members of society, contributing to the business or general prosperity of the community, and have occupied positions of some responsibility in business or professional life, and are possessed of social qualifications that would contribute to the happiness of the other members.

It is not the policy of the Board of Trustees to receive as members persons who are already cared for in other homes for the aged.

The Home is absolutely free. No admission fee is required. Any member who has not sufficient income to provide for his clothing and personal expenses will be furnished with sufficient funds therefor. The Home provides for each member a single bedroom and lavatory, together with board and laundry service. He also has the use of the public rooms, consisting of lounge, library, smoking room, billiard room and recreation rooms. The services of a nurse and visiting physician are furnished to the members without charge.

Applicants for admission to the Home should apply to the Secretary at the office of the corporation, Room 737, Prudential Building, Newark, New Jersey, and give full information concerning their past lives, together with the names and addresses of several reputable men as references to their character, reputation, condition and worthiness to become members of the Ward Home Family. If they are found qualified by the Committee on Admissions, they will be examined by a physician designated by the Board of Trustees. All applicants must be free from any contagious or infectious disease (including tuberculosis), from insanity, epilepsy or feeble-mindedness, and shall not be helpless cripples or suffering from an acute or chronic disease of any sort that requires hospital care.

The Home is open to visitors every afternoon from 3 to 5, and at other times by appointment with the Superintendent, O. M. Bowen, telephone South Orange 5050. All interested persons will be cordially welcomed and personally conducted through the premises by the Superintendent.

From information accumulated in the course of the development of the Ward Home installation, it is evident that there is an old age maintenance problem which is met by foundations of this type. Financial adversity not infrequently overtakes men of substantial fortune after they have passed the period of productivity and are beyond reasonable possibility of personal recuperation of their vanished fortunes. It often happens that such unfortunates are without relatives or friends to whom to turn, and are in danger of becoming social derelicts at public charge. The almshouse means disgrace and torture. These men have been sustaining members of society and have contributed to the business and general prosperity of the community, have occupied positions of responsibility in business or professional life, and have enjoyed a preferential social environment. Having through misfortune lost the means they once had for their own support, and having become wholly or partially unable to support themselves, a haven, where companionship with equals may be found and comforts comparable with those to which in better days they have been accustomed, is well earned by earlier contributions of service to fellow-



Dormitory Quadrangle



Arcade Connecting Wings of Dormitory

man. It may be that some not worthy may find shelter to which they may not be justly entitled. That fact does not condemn the economic propriety or social necessity underlying a benevolent foundation for their relief. Unless history fails to repeat itself, the Ward Home will abundantly justify the beneficent thought of its founder.

Current Events

ABSTRACT OF PROCEEDINGS OF HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION, AT THE DETROIT SESSION, JUNE 23-27, 1930

The first session of the House of Delegates at the Eighty-First Annual Session of the American Medical Association held in Detroit, Michigan, June 23 to 27, 1930, was called to order by the Speaker, Dr. F. C. Warnshuis, at 10 a. m., Monday, June 23.

The total number of delegates registered and in attendance on the meetings of the House of Delegates was 160. All constituent state and territorial medical associations were represented except Delaware, Idaho, Nevada, New Mexico, Alaska, Hawaii, the Philippine Islands and Porto Rico, and all sections of the Scientific Assembly were represented except the section on Obstetrics, Gynecology and Abdominal Surgery and the section on Pharmacology and Therapeutics. The minutes of the meetings of the House of Delegates at the Portland Session were approved as printed in the official Proceedings.

ADDRESS OF THE SPEAKER

Dr. F. C. Warnshuis, Speaker, in his address to the House of Delegates recommended that the House of Delegates should have one executive session at each annual meeting for the purpose of giving the most careful consideration possible to matters pertaining to policies of the Association. This recommendation was later adopted by the House of Delegates.

The Speaker also recommended that a reading clerk should be appointed to read all reports and resolutions in order to insure that all members of the House are able to hear and so definitely to understand the import of these communications to the House. The Reference Committee to which the address of the Speaker was referred recommended the adoption of the Speaker's suggestion with the provision that any delegate who preferred to read a resolution or other communication submitted by himself should be privileged to do so.

The Speaker appointed the following reference committees:

ADDRESS OF THE PRESIDENT

Dr. Malcolm L. Harris, President, in his address to the House of Delegates, referred to the proposed establishment in European countries of universal medical service by the government. He discussed the present National Health Insurance Act in effect in England and the proposal of the British Medical Association to provide a nationwide medical service, the establishment in Prussia of an occupational tax levied on physicians, and other developments of a somewhat similar nature in Europe.

Dr. Harris renewed the recommendations offered by him as President-Elect at the Portland Session to the effect that component county medical societies should incorporate and establish medical centers owned, controlled and managed by

the members of these societies, where all classes of persons who are unable to pay regular fees can be given the highest type of medical treatment at prices within their means.

The President discussed the work and the purposes of the Committee on the Costs of Medical Care and gave specific information concerning certain principles adopted by that committee at its last meeting, which are as follows:

(1) The personal relation between physician and patient must be preserved in any effective system of medical service.

(2) The concept of medical service of the community should include a systematic and intensive use of preventive measures in private practice and effective support of preventive measures in public health work.

(3) The medical service of a community should include the necessary facilities for adequate diagnosis and treatment.

An important recommendation offered by the President was that the House of Delegates should authorize and request the Board of Trustees to establish a Bureau of Medical Economics whose functions shall be to study all economic matters affecting the medical profession. A similar suggestion was contained in a resolution offered later in the session by the delegates of the California Medical Association.

ADDRESS OF THE PRESIDENT-ELECT

In the address of the President-Elect, Dr. William Gerry Morgan, the House of Delegates was asked to give consideration to the advisability of holding a midyear meeting of the House of Delegates, always in the headquarters of the Association in Chicago.

A considerable portion of the address of the President-Elect was given over to a discussion of the relations of government to hospital maintenance and of the relation of the physician to the hospital. In concluding this part of his address, Dr. Morgan laid down the following principles:

(1) The physician is no more obligated to provide for the care of the indigent sick than his fellow citizen.

(2) In mutual charitable undertakings for the care of the sick, each citizen contributes what he has; the laymen, physical necessities; the physician, professional skill. But each has a right to protect himself from exploitation and to judge of the merit of the recipients of his bounty.

(3) When a hospital offers its facilities to a mixed clientele, pay, part pay and pauper, the distinction between the sources of those facilities should be clearly recognized. The physical equipment and service is of general public origin, and their uses may be sold or given away in the discretion of lay boards; but the professional facilities are, and always must be, the contribution of the medical staff as individuals and cannot become in any sense the property of the institution.

(4) When a hospital is owned and operated by the government and supported by taxation, to which the medical profession contributes its due proportion, medical attendance should be paid for by taxation, along with all the other facilities supplied by the institution.

(5) No hospital, instituted and supported by public philanthropy or community coöperation of any kind, should be permitted to increase its revenues and so reduce its financial burden on the public, by any system of collecting fees for medical attendance, and thus engaging in the corporate practice of medicine.

(6) The membership of the Association should be guided by these principles in accepting posts

on the staff of hospitals, and should refuse to support by the contribution of their services, or by the references of their patients, any institution violating them.

REPORT OF THE SECRETARY

The Secretary reported that the enrolled membership of the Association on April 1, 1930, was 99,181, and that during the year 1929 the deaths of 1378 members were recorded.

The number of Fellows on April 1, 1930, as shown by the Secretary's report was 65,419.

A table was presented showing the number of counties, the number of component county medical societies and the number of counties not organized, the number of physicians in each state and the number of members in each of the constituent state medical associations.

A large part of the Secretary's report was devoted to a discussion of the need of development of a more militant spirit in county medical societies and in state medical associations to the end that each of these units of medical organization, in its sphere, will become more efficient in advancing the science of medicine, in improving the means and methods of its application, in bettering the public health and in persistently opposing anything and everything that would reduce the medical profession to the status of a trade or of a socialized group of hirelings.

REPORT OF THE BOARD OF TRUSTEES

The Board of Trustees, in its report to the House of Delegates, referred to the death of Dr. Charles W. Richardson, for more than 9 years a member of that Board, and paid a high tribute to Dr. Richardson for his devoted and efficient service.

Announcement was made of the election by the Board of Trustees of Dr. Thomas S. Cullen, of Baltimore, to serve as a member of the Board of Trustees to fill the vacancy created by the death of Dr. Richardson until the first meeting of the House of Delegates.

INCOME AND EXPENDITURES

The financial statement submitted by the Board of Trustees showed that the gross income of the Association for the year 1929 was larger than in any previous year but that increased expenditures due to enlargements and improvements in the publications of the Association, and in the expansion of the work of the various councils, bureaus and departments more than offset the gain in gross income. The net gain for the year was \$257,654.86—\$19,000 less than the net gain reported for the year previous. The outlay occasioned by increased activities in practically every department was, exclusive of the department of publications, approximately \$26,000 greater than in 1928.

The Board of Trustees commented on the constantly increasing demands that are being made for greater service and pointed out that the natural development of the Association would inevitably necessitate larger annual expenditures and that the expansion and improvement of service, together with necessary installation of equipment to replace that worn out by constant use over a period of many years, and the provision of more adequate housing facilities will inevitably demand a larger income than has heretofore been realized.

THE JOURNAL AND OTHER PUBLICATIONS

The net paid weekly average circulation of *The Journal* for the year 1929 was 96,220, showing an increase of about 3000 subscribers.

The report of the Board of Trustees showed that, with a single exception, each of the special journals recorded a gain in circulation in 1929, although in some instances the gain was very small. The total number of names on the mailing lists of the special journals December 31, 1929, was 23,125. The net loss sustained through publication of this group of journals in 1929 was less by \$8000 than in the preceding year. The Board of Trustees made grateful acknowledgment of service rendered by the editorial boards of the special journals, the members of which serve without compensation.

The Quarterly Cumulative Index Medicus, considered to be one of the most important ventures sustained by the Association, was, according to the Report of the Board of Trustees, enlarged and improved during the year and plans for further improvement were submitted to the House of Delegates. Announcement was made that the annual contributions of the Carnegie Institution, which has generously supported the Quarterly Cumulative Index Medicus, would be terminated in 1931, and the Board of Trustees expressed the hope that some philanthropic agency might be concerned with securing for the Index an adequate endowment to insure its permanence.

The circulation of *Hygeia* was reported to be well over 75,000. Approximately 70% of *Hygeia*'s subscribers are laymen, and approximately 30% are physicians. The gain in circulation in 1929 was more than 10,000, this gain having been recorded principally among educators and other professional groups outside of the medical profession. The income derived through publication of *Hygeia* in 1929 was sufficient to pay publication costs and leave a net gain approximating \$10,000. The Board of Trustees appealed to the physicians of the country for their whole-hearted support of *Hygeia*.

ADVERTISEMENT DEPARTMENT

The volume of advertising in the publications of the Association was reported to have been larger in 1929 than in any previous year. The usual large amount of offered advertising matter was rejected, in keeping with the determination to maintain the high standards that have heretofore characterized the advertising columns of the Association's periodicals.

AMERICAN MEDICAL DIRECTORY

The Eleventh Edition of the American Medical Directory was issued in July, 1929. Certain changes effected in this edition appear to have been favorably received and are believed to have contributed to its improvement. While sales were still in progress at the time of preparation of the report, it was indicated that receipts would be large enough to meet practically all publication costs.

CO-OPERATIVE MEDICAL ADVERTISING BUREAU

The Bureau now serves 30 official publications of constituent state medical associations. The *Delaware State Medical Journal* was added to this group in 1929 and only 2 state medical journals are not members of the Coöperative Medical Advertising Bureau.

The earnings of the Bureau for 1929 were \$27,584.99, of which \$11,500 was rebated in proportionate amounts to the journals holding membership. The remainder of the sum represented by total earnings of the Bureau was used in paying operating expenses. The sum rebated to state medical journals was, of course, in addition to the amounts received by those journals in payment for advertising space.

ORDER DEPARTMENT AND MAILING SECTION

The Order Department, through which is handled individual orders for publications of the Association other than its regular periodicals and other material provided for members, took care of approximately 66,000 orders during the year, the total number of units having been 273,287. Indicative of the constant increasing demands made on the offices of the Association, it is interesting to note that exclusive of first class mail, 213 tons of mailing matter went out from the Order Department in 1929 as compared with 146 tons in 1928. In a supplementary report submitted by the Board of Trustees, it was brought out that approximately 3000 tons of outgoing printed material were handled by the mailing department of the Association in the last year.

THE LIBRARY

The demands made on the library are constantly increasing so that for the third time in as many years the quarters provided for it have been outgrown. In 1929, nearly 2000 library packages were supplied, approximately 5000 periodicals were loaned and 3000 reference questions were answered. About 700 periodicals are regularly received, and working relations are maintained with other important libraries.

The Employees' Library, maintained by fees paid by employees of the Association, loaned more than 5000 books during the year.

COUNCIL ON PHARMACY AND CHEMISTRY

In February, 1930, the Council on Pharmacy and Chemistry entered upon the twenty-fifth year of its existence. One of the objects announced at the founding of the Council was the publication of an unofficial pharmacopeia for new drugs to provide tests and standards for such preparations as might have promise of therapeutic usefulness, pending the time when they should be eligible for the Pharmacopeia. This eminent object of the Council has been strikingly fulfilled, and each succeeding year finds increased evidence of the Council's successful performance and of its increasing usefulness to the medical profession.

Another object declared at the inception of the Council on Pharmacy and Chemistry was that a salutary influence should be exercised over the advertising claims made for proprietary medicines. With establishment of the Council, advertising in *The Journal* was limited to preparations reported on favorably and to claims permitted by the Council. This rational supervision was extended to other publications of the Association, and soon the official organs of constituent state medical associations gave support to the work of the Council until, at the present time, all of the state medical journals, with 2 exceptions, limit their proprietary advertising to products passed by the Council. A considerable number of medical publications not controlled by constituent state medical associations likewise give their support to the Council's work.

The report of the Board of Trustees contained a rather extensive description of the activities of the Council on Pharmacy and Chemistry, which is composed of 17 men of outstanding prominence in the scientific world. The members of the Council serve without compensation and give a large amount of their time to its work.

In view of the widespread popular interest in the use of properly selected foods for promotion of health, and the consequent exploitation by commercial interests of food products with a health appeal, the Council on Pharmacy and Chemistry has created a special Committee on Foods. This

committee examines the nonmedicinal products for which health claims are made and publishes in *The Journal* and in an annual publication, "Accepted Foods", descriptions of products found to meet the committee's requirements and also of those found unacceptable.

The Therapeutic Research Committee of the Council on Pharmacy and Chemistry reported that 11 grants, amounting to \$3000, were made during the year 1929. These grants are intended to be of assistance as supplemental to other resources of scientific investigators.

COUNCIL ON PHYSICAL THERAPY

The Council on Physical Therapy reported increased activities during the year; these having been concerned chiefly with dissemination of information concerning the merits and limitations of physical methods and energies as therapeutic agents. Progress is slowly but surely being made in divesting physical therapy of exaggerated and uncritical claims. An increasingly conservative and scientific attitude on the part of the better manufacturers of physical therapeutic equipment, and on the part of authors of papers on physical therapy, is being noted. Scientific investigators in the larger universities and medical schools are seriously undertaking experimental work in determining the biologic effects of light, heat and physical exercise and their limits of therapeutic application. By means of special articles, addresses before scientific societies and other gatherings and radio broadcasts under the auspices of the Council on Physical Therapy, the medical profession and the public are being informed of the possibilities and impossibilities of physical therapy as a curative or preventive agent.

In all of its educational activities this Council endeavors to point out the importance of physical therapy in medicine as an adjuvant rather than as a sole method of treatment. The Council expressed its opinion that too much emphasis has been placed on apparatus therapy and not enough on the possibilities of such measures as heat, massage, therapeutic exercise and occupational therapy.

The Council has cooperated with the Bureau of Investigation in exposing worthless devices by conducting experiments to determine the physical characteristics of such contrivances and their actual biologic effects. The Council has also cooperated with governmental agencies and other investigative bodies in combating the sale of harmful and useless apparatus for the purpose of self-treatment. The publishers of a number of the better periodicals have conferred with the Council regarding claims that might legitimately be made in advertisements of devices sold to the public.

The various committees of the Council have prepared and published reports dealing with nomenclature in physical therapy, with x-rays as a diagnostic agent, and with x-rays and radium as therapeutic agents in deep-lying and superficial conditions. A committee on education is preparing a bibliography on physical therapy and related subjects, and the Committee on Standardization has undertaken a critical survey of the scientific literature.

BUREAU OF LEGAL MEDICINE AND LEGISLATION

The work of this bureau has covered a wide scope and has been vigorously prosecuted in the interests of the medical profession and the public. The report of the Bureau describes its activities in opposing legislation of the type of the Shepard-Towner Maternity and Infancy Act and in opposing bills introduced in Congress designed to

bring about revolutionary changes in the laws relating to narcotic control which would make the medical profession subject to a government bureau in which power would be vested that would destroy the validity of licenses issued by the states to physicians in so far as they apply to the use of narcotics.

The report also discusses at some length World War Veterans' legislation under the provisions of which the United States Government would provide free medical and hospital service for any and all persons who served in the World War irrespective of the service origin of diseases or injuries affecting the proposed beneficiaries of such service. The policies contemplated in such legislation have been actively and persistently opposed by the American Medical Association.

Rulings have been issued by the Commissioner of Internal Revenue to the effect that the taxpayer has the "right to consider the entire amount received as professional fees as earned income if the taxpayer is engaged in a professional occupation such as a doctor or a lawyer, even though the taxpayer employs assistants who perform part or all of the services, provided the client or patient is that of the taxpayer and looks to the taxpayer as the responsible person in connection with the services performed.

"This ruling will also apply to income received as professional fees from a professional partnership even though the partnership employs assistants who work on a salary basis provided the clients or patients are that of some active member of the partnership and look to some active member of the partnership as responsible for the services performed."

These rulings of the Commissioner of Internal Revenue were made as the result of an appeal made by Drs. Arnett and Crockett, of Lafayette, Indiana, with whose counsel the American Medical Association cooperated with counsel employed by the Association.

Changes in tariff of interest to physicians were discussed in the supplementary report of the Board of Trustees which showed that although duties have been increased on a considerable number of articles necessary for the diagnosis and treatment of disease the increases were held down to a point below that demanded by certain manufacturers of surgical instruments. The Bureau of Legal Medicine and Legislation actively opposed undue increases in tariffs on surgical instruments and appliances used in the practice of medicine. The Board of Trustees, in its supplementary report to the House of Delegates, had the following to say: "It will be regretted if the increased duty paid by importers at ports of entry will be made the excuse for increases in retail prices far greater than the increase in the duty and will in the end be reflected in the cost of medical, surgical and hospital care."

Other matters discussed in that part of the report of the Board of Trustees devoted to the activities of the Bureau of Legal Medicine and Legislation were the tendency on the part of state legislatures to add to the liabilities and duties of physicians, the increased activities of cultists in an effort to compel their admission into nonsectarian hospitals, and defense against unjust malpractice claims.

BUREAU OF HEALTH AND PUBLIC INSTRUCTION

The general correspondence of the Bureau of Health and Public Instruction, which represents an important part of the work of this Bureau, was materially increased during 1929. More than 4000 inquiries concerning one therapeutic product

were received by the Bureau during the year, a fact which shows the increasing interest of the public in matters pertaining to health and the constantly growing use of the services of the Bureau. Answers to more than 300 questions submitted to *Hygeia* were provided by the Bureau.

Three hundred and two radio health talks were delivered over Station WBBM, which elicited far greater response from radio listeners than in any previous year and resulted in bringing to the Association many inquiries and requests for printed material. Many of the radio talks delivered under the auspices of the Bureau have been mimeographed and copies made available for the use of component county medical societies.

The Director and Assistant Director of the Bureau of Health and Public Instruction delivered addresses before 12 important lay organizations in 5 different states, and exhibits of educational material were made during the year at the meetings of 9 state medical societies and at many meetings of other medical societies and important professional and lay organizations.

During the year more than 155,000 copies of pamphlets and posters of the Bureau were distributed.

Efforts have been continued to popularize the periodic examination of apparently healthy persons, and approximately 75,000 of the forms used in recording the observations in periodic health examinations were sent out by the Bureau.

The Assistant Director of the Bureau devoted a considerable part of his time during the year to collection and compilation of statistics dealing with the capital investment in medicine and the income of physicians. The response from the profession generally has not been large enough to make it possible to arrive at representative figures concerning either the investment required in medical practice or the income of physicians, but the work is being carried on in the hope that dependable information may be secured.

COMMITTEE ON POISONOUS GASES

This Committee has been actively at work and has already published reports on the hazardous effects of carbon monoxide and on poisonous gases used in refrigeration.

SCOPE OF THE ASSOCIATION'S WORK

Apparently many members do not have any genuine appreciation of the scope of the work of the Association. Many seem to be unaware that any activities are engaged in except those necessary for the production of *The Journal*. Others appear to believe that the Association is concerned only with the publication of its various periodicals.

It was brought out in the report of the Board of Trustees that expenditures of the Councils, Bureaus and other departments of the Association were in excess of \$280,000 in 1929, this having been in addition to miscellaneous charges due to costs of publication of the special journals and of the Directory, to incidental expenses involved in the conduct of the Association's business and, of course, in addition to the expense arising from the publication of *The Journal*.

The Board of Trustees urged that members and Fellows of the Association take advantage of avenues open to them for securing information concerning the work of the Association and that all members of the House of Delegates make comprehensive reports of the Proceedings of that body at the annual sessions of the constituent associations they represent.

REPORT OF THE JUDICIAL COUNCIL

The report of the Judicial Council was submitted by its Chairman, Dr. George Edward Follansbee, and showed that the amount of work confronting the Council in 1929 was unusually large and that many of the questions submitted were of a most perplexing nature, indicating that the conditions of the times are tending to produce significant changes in the relations of medicine.

The development of industrial medicine, the activities of corporations in medical fields, the expansion of public health programs—especially those of unofficial agencies—the organization of so-called "hospital associations" and "coöperative diagnostic laboratories", the creation of funds and foundations concerned in some manner with medicine and public health, the workings of compensation laws, and many other factors have given rise to many new questions and have produced many perplexing problems of which final solution is not easily possible.

The Council referred in its report to concerns known as "coöperative diagnostic laboratories" in which practicing physicians participate as "members". Information available to the Council indicates that organization of these concerns is effected in such manner that control will lie in the hands of their promoters and directors and that practicing physicians identified with them must pay for "membership". These physicians are then expected to refer work to laboratories operated by the concern and, as a consideration for such reference, receive compensation varying in amount with the amount of work referred. The Judicial Council expressed the opinion that schemes of this kind are unethical and directly opposed to the interests of scientific medicine and of the public.

At the Portland Session a resolution was adopted by the House of Delegates requesting the Judicial Council to submit to the House of Delegates in 1930 "a comprehensive statement for the guidance of the American Medical Association concerning the practice of medicine by corporations, by clinics, by philanthropic organizations, by industrial organizations, by demonstrations and by similar organizations, and concerning the relationship of physicians thereto". The Council reported to the House that the scope of this resolution was so broad and the magnitude of the task assigned so great that it had been found impossible to comply with the request that a comprehensive report be submitted at the Detroit session but that the Council had sought to gather information and secure expressions of opinion from qualified persons and had found that to carry out the intent of the resolution it would be necessary to compile and digest a mass of information of such size that accomplishment of the task is far beyond the capacity of the facilities of the Council. It was brought out that some conditions requiring study have been so lately created and are undergoing such rapid changes that quick appraisals cannot be made. Others now have purely local bearing and no present national significance but may come to be of important interest to the entire profession. With respect to some of the matters covered by the resolution, the Council found that there had been no crystallization of opinion and expressed a doubt that well considered judgment can be formulated. It was urged that component county medical societies and constituent state medical associations study closely conditions existing in their respective jurisdictions and that they be guided in offering or withholding approval and coöperation in movements affecting medicine by conclusions based on such studies.

With regard to the practice of medicine by corporations, the Council voiced its opinion, based on present evidence, that such practice is detrimental to the best interests of scientific medicine and of the people themselves: "When medical service is made impersonal, when the humanities of medicine are removed, when the coldness and automaticity of the machine are substituted for the humane interest inherent in individual service and the professional and scientific independence of the individual physician, the greatest incentive to scientific improvement will be destroyed and the public will be poorly served."

PROTEST AGAINST CERTAIN GOVERNMENT REGULATIONS

Dr. J. N. Vander Veer, New York, offered a resolution protesting against regulations under the Volstead Act and the Harrison Narcotic Act requiring physicians "to state the diagnosis of the disease or ailment of the patient on the stub of every prescription" for alcohol or for narcotic drugs.

This resolution was referred to the Council on Scientific Assembly and then to the Board of Trustees and to the Judicial Council. The Board of Trustees in a report submitted to the House of Delegates approved the principles of the resolution and expressed its intention to attempt to secure the indicated changes in regulations now in effect. The Judicial Council recommended that effort be made to have the objectionable regulations changed.

ENTERTAINMENT AT ANNUAL SESSIONS

Dr. C. F. Moll, Michigan, submitted resolutions providing that "the precedent governing entertainment functions is hereby terminated" and "that at future annual sessions the only formal entertainment sponsored by this Association shall be the President's Annual Reception, the expense of which shall be borne by this Association", and "that the only obligation that shall rest on the local profession of any city in which this Association holds its annual session shall be to render such assistance through proper committees or individuals as will enable the Trustees and other officers to provide suitable hotel accommodations, meeting places, exhibit space and local information".

These resolutions were referred to the Board of Trustees and, on recommendation of the Board, were adopted by the House of Delegates.

COUNCIL ON MEDICAL ECONOMICS

Dr. J. B. Harris, California, submitted resolutions from the California Medical Association providing that the American Medical Association should establish a Council on Medical Economics. This resolution together with the recommendation of the President providing that a Bureau of Medical Economics be established was referred to the Reference Committee on Reports of Officers. This Reference Committee recommended "that the Board of Trustees put the principle into effect by the creation of a Bureau of Medical Economics to function under the direction of the said Board". The recommendation of the Reference Committee was adopted.

STANDARDIZATION OF HOSPITALS

Dr. E. P. Sloan, Illinois, offered resolutions commending the Council on Medical Education and Hospitals for the work already accomplished and urging the Council to continue its work and to increase its activities in the field of hospital inspection and standardization.

On recommendation of the Reference Committee on Medical Education, the resolutions submitted by Dr. Sloan were adopted.

COMMITTEE TO STUDY LEGISLATIVE PROBLEMS

Dr. C. B. Wright, Minnesota, offered a resolution to the effect that the Speaker of the House of Delegates be authorized to appoint a committee of 5 representing the various sections of the country and composed of men who have had experience in dealing with state legislation, which committee should study legislative problems and offer recommendations to the House of Delegates and, in the interim, to the Board of Trustees.

The Reference Committee on Legislation and Public Relations recommended that the resolution be changed to read as follows:

"RESOLVED; That the Board of Trustees appoint annually a committee of 5 representing various sections of the country, the personnel of said committee to be composed of men who have had experience on state legislative committees, that said committee is to study these problems and to co-operate with the Bureau of Legal Medicine and make such recommendations as they consider necessary to the House of Delegates, and in the interim to the Board of Trustees."

The resolution as amended by the Reference Committee was adopted.

DANGERS FROM CHILDREN'S TOYS

Dr. J. D. Brook, Michigan, offered a resolution providing that action be taken through a proper committee designed to educate manufacturers of children's toys to the hazard involved in the use of pins, buttons and other small objects loosely attached to such toys.

On recommendation of the Reference Committee on Hygiene and Public Health, the resolution of Dr. Brook was adopted.

MOTION PICTURES

Dr. E. F. Cody, Massachusetts, offered a resolution providing that the Board of Trustees be authorized to appoint a special committee to investigate and study the educational possibilities of motion pictures and their proper utilization in connection with the teaching of medicine by teaching institutions and by medical societies.

This resolution was referred to the Board of Trustees and, on recommendation of that body, was adopted by the House of Delegates.

CLINICAL LECTURES

The Reference Committee on Sections and Section Work commended the action of the Council on Scientific Assembly in substituting clinical lectures for diagnostic clinics at annual sessions of the Association, and the report of the Reference Committee was approved by the House.

ACTION ON SECRETARY'S REPORT

The Reference Committee on Reports of the Board of Trustees and Secretary reported as follows on the report of the Secretary:

"We endorse the sentiment expressed in the report of our secretary in which he recommends a more active and aggressive program on the part of component medical societies, stressing the necessity for unified action on the part of the medical profession as being essential in maintaining leadership in all questions pertaining to health matters. Also, the importance of establishing and maintaining the hearty coöperation of both the state and the county organizations through the

agency of their respective public relation committees.

We recognize the changing method in medical practice; however, we earnestly urge a realization of the necessity of maintaining the personal relationship between physician and patient, and oppose any attempt on the part of any well meaning but misinformed and misguided individuals or organizations in their efforts to apply 'mass production' methods to the practice of medicine.

We approve that portion of the report advocating the education of the public in all matters pertaining to health and disease.

We concur with the idea expressed that the medical profession has been too reticent and conservative in taking a position of active leadership in health activities, particularly with reference to the education of the public along these lines.

We believe that it would be a decided aid to organized medicine if the members of the House of Delegates would avail themselves of the opportunity of attending the annual conference of the state secretaries."

This report of the Reference Committee was adopted by the House of Delegates.

ACTION ON REPORT OF BOARD OF TRUSTEES

The report of the Reference Committee on the report of the Board of Trustees, which was adopted by the House of Delegates, was as follows:

"We heartily commend the Board of Trustees for the financial showing made, as exemplified by the auditor's report for the past year. A review of the report emphasizes the wisdom of the action of the house in authorizing the increase in the subscription price of *The Journal* to meet the demands of the increased Association activities.

We are gratified by the position of *The Journal* as the leader of medical publications, as well as the special journals in their respective fields.

We believe that *Hygeia* has a place in every physician's waiting room and the attention of Fellows should be called to this fact.

We emphasize the value of the library and commend its more general use.

We endorse the work of the various councils for the past year as detailed in this report.

We especially commend the work of the Bureau of Legal Medicine and Legislation with reference to national legislation in connection with the narcotic bill and the Sheppard-Towner Maternity and Infancy Act.

We approve of that part of the report with reference to the World War Veteran's Act wherein attention is called to the viciousness of this proposed legislation, and we recommend that this House of Delegates go on record as being opposed to the federal government giving all medical and surgical care to veterans suffering from injury or disease that is not service connected.

We recommend the methods employed by the Bureau of Legal Medicine and Legislation and urge close coöperation of the various state legislative committees with this bureau.

We approve of the educational campaign that has been inaugurated by the Bureau of Health and Public Instruction and recommend a continuation of the coöperative policy with the National Educational Association and National Congress of Parents and Teachers.

The value and importance of the Annual Scientific Exhibit cannot be overestimated, and we recommend that it be continued and expanded from year to year.

The Trustees' report as a whole reflects decided progress in the Association's affairs. Your

committee desires to express its realization of the immense amount of work entailed and its appreciation of their worth-while labors in connection therewith."

COMMUNICATION TO THE AMERICAN LEGION

On motion of Dr. Donald Macrae, Jr., Iowa, the Speaker of the House of Delegates and the Secretary of the Association were instructed to send a communication to the American Legion presenting the official attitude of the Association with respect to legislation providing for medical, surgical and hospital care by the federal government for veterans suffering from injury or disease that is not service connected.

FEDERAL AID FOR MATERNAL WELFARE

The following resolutions were offered by the Board of Trustees and adopted by the House of Delegates on recommendation of the Reference Committee on Legislation and Public Relations:

"WHEREAS, The American Medical Association is in entire sympathy with the cooperative efforts of federal and state agencies to establish and develop official local health organizations for the conduct of those activities which are generally recognized as the proper functions of such health departments; and

WHEREAS, The usurpation of any public health function by any lay bureau of the federal government, which through allotments of federal subsidies for special health services, seeks to duplicate and administer duties and functions already placed by law on the United States Public Health Service; and

WHEREAS, The United States Public Health Service has in the past efficiently discharged its duties with respect to such matters and now, through recent reorganization, has been provided with enlarged facilities for carrying on such work; and

WHEREAS, An effort is now being made to revive and perpetuate the federal subsidy system established under the defunct Sheppard-Towner Maternity and Infancy Act, which authorized the payment of state subsidies over a fixed period of years, on an arbitrary and irrational basis of population, without reference to the ascertained sanitary and health needs of the several states or to their ability to meet their own needs; and

WHEREAS, The payment of such subsidies was made dependent on the surrender by the legislatures of the several states, to the federal government, of the right to supervise and control state activities in the selected field of public health; and

WHEREAS, This system after 7 years' trial under the administration of a lay bureau effected no improvement in the field of public health in which it was operative, notwithstanding the expenditure of more than \$11,000,000 of federal and state money; and

WHEREAS, In the judgment of the House of Delegates of the American Medical Association, any such system tends to destroy local initiative and sense of responsibility and to pay federal funds for purposes named by the federal government to states not in need of federal aid; be it

Resolved, That the House of Delegates of the American Medical Association condemns as unsound in policy, wasteful and extravagant, unproductive of results and tending to promote communism, the federal subsidy system established by the Sheppard-Towner Maternity and Infancy Act and protests against the revival of that system in any form;

Resolved, That it is the sense of the House of Delegates that each state should be left free to formulate its own health programs, with the co-operation of the United States Public Health Service if desired by the state, free from any inducement or compulsion in the way of federal reward or coercion;

Resolved, That any legislation involving co-operation between the federal government and the several states in the field of public health must, in the interest of efficiency and economy, in the judgment of the House of Delegates, be administered under the joint supervision and control of the United States Public Health Service and the state health authorities; and be it further

Resolved, That copies of these resolutions be sent immediately to the President of the United States and to every Senator and Representative in Congress."

CARE OF VETERANS

The following resolutions offered by the Board of Trustees were adopted by the House of Delegates and a copy sent immediately to the President of the United States:

"*Resolved*, That in the opinion of the House of Delegates of the American Medical Association, legislation to extend in point of time the presumption of service origin of diseases and injuries from which veterans are suffering, to establish arbitrarily the service origin of such diseases and injuries, and to extend the category of such diseases, is without sound basis in the science and act of medicine;

Resolved, That the provisions of such legislation to the effect that lay evidence as to the nature and extent of diseases and injuries is to be given added consideration will give to such evidence weight to which it is in no way entitled and cause pressure on the Veterans' Bureau to allow claims for compensation without adequate medical support;

Resolved, That legislation recently enacted providing for the enlargement of the hospital facilities at the command of the Veterans' Bureau for the care of veterans, rich and poor, who desire hospitalization and treatment for diseases and injuries that admittedly have no relation whatever to military service is unsound and communistic in character, and the pending proposal to allow such veterans as are of financially limited means bonuses and money to add to their own comforts while they are in the hospital and to help support their families during that period and for limited periods thereafter is calculated to induce patients to seek hospital care through the Veterans' Bureau when such patients should be better and more economically treated as ambulant patients or treated in their own homes;

Resolved, That the duty of providing medical and hospital care and financial relief for indigent citizens of any state, when disabled by diseases and injuries that did not originate in the line of military duty, is a function not of the federal government, but of the governments of the several states and should be discharged through state agencies, including permanently established state, county, municipal and private hospitals; and

Resolved, Further, that a copy of these resolutions be sent to the President of the United States."

REPORT OF REFERENCE COMMITTEE ON REPORTS OF OFFICERS

The Reference Committee on Reports of Officers recommended that the suggestion of the President-Elect to the effect that a mid-year meeting of the House of Delegates should be held each year

in Chicago be not adopted, and this recommendation was approved by the House of Delegates. The Reference Committee reported that existing provisions of the Constitution and By-Laws for special called meetings of the House make it unnecessary to specifically provide for a regular mid-year meeting.

The Reference Committee approved the conclusions announced by the President-Elect with respect to the relations of physicians to hospitals. These conclusions appear in that part of this abstract referring to the address of the President-Elect.

REPORT OF COMMITTEE ON STANDARDS OF PHYSICAL FITNESS

The committee appointed to consider "the advisability of amending the present standards of physical fitness of automotive operators, adopted by this association by the addition of standards of mental and moral fitness", has made a preliminary study of the subject of the resolution which reads:

"WHEREAS, The Traffic Committee of the Medical Society of the District of Columbia in a report on the standards of fitness to be required of automobile drivers has found that many accidents are due to defects of mental and moral responsibility, and

WHEREAS, Such defects in mental and moral responsibility may be determined by medical examination, as demonstrated by the examination of airplane pilots required by the Department of Commerce, therefore be it

Resolved, That the House of Delegates consider the advisability of amending the present standards of physical fitness of automotive operators, adopted by this association, by the addition of standards of mental and moral fitness to be recommended for adoption by the several states as a condition for issuing licenses to operate motor vehicles, and that this resolution be referred to a special committee for consideration and report at the 1930 meeting. [Adopted by the House of Delegates in 1929.]

The committee finds:

(1) That 'motor vehicle fatalities in the United States in 1929 numbered 31,000, which is 93.8% of the total number of traffic fatalities. This was an increase of 10.8% over 1928. Motor vehicle fatalities showed an increase from 1920 to 1929 of 147%. . . . For 3 years past . . . the number of fatalities has been mounting at a faster rate than the number of cars'. (Report of Committee on Traffic Accident Statistics, National Conference on Street and Highway Safety, 1930.)

(2) That the House of Delegates in 1925 adopted the following report from the section on Ophthalmology.

Dr. C. D. Wescott, Section on Ophthalmology, presented the report of the Committee on Physical Standards for Drivers of Motor Vehicles and a resolution providing for its adoption by the House of Delegates as follows:

REPORT OF THE COMMITTEE ON PHYSICAL STANDARDS FOR DRIVERS OF MOTOR VEHICLES

Every individual driving a motor vehicle, private, public or commercial, of the self-propelled type (automotive) shall be required to present to the motor licensing board in each state a certificate from a reputable physician (the standard of such medical fitness shall be licensure to practice medicine or surgery) in which the following points are certified:

VISUAL STANDARDS

The applicant has vision of at least 20/50 in one eye and vision of at least 20/100 in the other eye, with or without glasses. Applicants with less vision than 20/100 in the poorer eye may, under certain conditions, be qualified by a special or county board (see below).

Double vision shall disqualify.

Such certificates shall be made on a regular form furnished by the motor board, and, on licensing of the applicant by the board, the applicant shall be furnished with a driving certificate that shall be at all time available for inspection.

Examiners shall be recompensed by a fee paid by each applicant, the amount of such fee being determined by the motor boards in each state.

The license must be renewed every year, but the medical certificate must be made anew every 3 years, provided the applicant makes a sworn statement each intervening year that, to the best of his or her knowledge, there has been no change in his or her physical condition so far as the certificate applies, since the time of the last examination.

SPECIAL OR COUNTY BOARD OF PHYSICAL LICENSURE

In each state there shall be a board of physical licensure in each county, or one for several counties, consisting of 2 general practitioners or surgeons and 1 ophthalmologist, which shall meet at stated intervals and have final decision in all cases. These boards so constituted shall be empowered (1) to examine all persons applying to them for a physical license, (2) to pass on the fitness of candidates regarding whose qualifications any individual examiner may be in doubt, and (3) may, under certain conditions, qualify candidates who lack the visual requirements specified above; viz., applicants with a lower standard of vision than 20/100 in the poorer eye may be qualified by them, provided that the vision in the best eye is at least 20/30 with or without the aid of glasses, and the field of vision is normal, that hearing is efficient and that the applicant is fully capacitated in all other respects physically, and alert mentally. In such cases applicants with one eye partially or wholly blind, or even entirely absent, may be qualified.

These boards shall be appointed by the governor and shall be recompensed either by a fee paid by the applicants who may appear before them, or they shall be salaried officers directly connected with the department in each state controlling the granting of motor licenses.

Conrad Berens, Jr.
William C. Finnoff.
Harry S. Gradle.
William Campbell Posey, Chm.

WHEREAS, The report of the Committee on Physical Standards for Drivers of Motor Vehicles and the Section on Ophthalmology, signed by Conrad Berens, William C. Finnoff and William Campbell Posey, has been unanimously adopted by the section and by the Section on Preventive and Industrial Medicine and Public Health; therefore, be it

Resolved, That the House of Delegates endorse the said report on Physical Standards for Drivers of Motor Vehicles.

Dr. Wescott stated that: The Section on Preventive and Industrial Medicine and Public Health added to our recommendations, so far as vision was concerned, these 3 points: 'The applicants shall have no disqualifying defects to either legs or arms. All applicants must be able to hear low spoken voice at 5 feet. The mentality of the ap-

plicant must be adequate and the heart's action reasonably healthy.'

Dr. Wescott moved the adoption of the resolution. This motion was seconded by Dr. George F. Keiper, Indiana, and carried.

(3) That in 1929, 'ten states and the District of Columbia have mandatory examinations of drivers for operators' licenses. Seven states require drivers' licenses but not mandatory examinations. Apparently, 31 states require no examination of any type.' (Report of Traffic Committee, Medical Society of the District of Columbia, 1929.)

(4) That according to available statistics defects of limbs, sight and hearing in the driver play a part in the production of automobile fatalities, but that cause in the realm of behavior plays a highly important part.

(5) That there do not appear to be available at this time any practical standards of examination by which these potential mental and moral hazards may be revealed. The methods employed by the Department of Commerce for testing airplane pilots are too elaborate for adoption by state traffic departments.

(6) That the physical standards recommended by this association in 1925 have been ignored by the states in the formulation of their traffic regulations where any method of licensing drivers has been adopted.

In view of the steadily mounting death rate from motor vehicle accidents, it is recommended: (a) that this association use its influence in the largest possible way, by direct agitation of the subject, and by cooperation with such organizations as the National Safety Council, the National Parent-Teachers' Association and the National Education Association to secure the adoption by all the states of regulations requiring the licensing of motor vehicle operators on the basis of examination, such examination being designed to reveal the applicant's physical and mental capacity to operate such a vehicle safely. (b) That this or a similar committee be authorized to study the subject further in order to formulate a practicable set of standards of physical, mental and moral fitness, for recommendation by this association to the several states as the basis of their required examination of prospective motor vehicle operators; the results of the committee's study to be submitted to the House of Delegates at a subsequent meeting.

Respectfully submitted.

Grant C. Madill, Chm.
John M. Dodson.
G. Henry Mundt.
Henry C. Macatee."

The report of this Committee was adopted by the House of Delegates.

CLINICAL THERMOMETERS

The following resolution, offered by Dr. George W. Reese, Pennsylvania, was adopted on recommendation of the Reference Committee on Hygiene and Public Health:

WHEREAS, Investigations made of numerous clinical thermometers offered for sale in the open market indicate that these devices are not always correctly standardized even though they carry a certificate indicating that they have been checked with a standard instrument secured from the Bureau of Standards in Washington, D. C., and

WHEREAS, Correct reading of the temperature of the patient is of the utmost importance as a clinical sign and that a decision of the greatest seriousness concerning the health and even the life

of the patient may depend on accurate recording of the temperature of the patient; therefore, be it

Resolved, That this House of Delegates through the Board of Trustees request the Bureau of Standards to formulate a method whereby thermometers alleged to conform with a standard set by the Bureau of Standards be checked as to such conformation, and that suitable penalties be provided by law for violation of such standards by manufacturers.

RADIO BROADCASTING

The following resolution, offered by Dr. Charles E. Humiston, Illinois, was adopted by the House of Delegates on recommendation of the Reference Committee on Legislation and Public Relations:

WHEREAS, Licenses issued by the Federal Radio Commission to broadcast have frequently been used as authority for disseminating false, misleading, pernicious and even obscene statements concerning matters of health, not for the benefit of the public but solely for the promotion of the selfish interests of the proprietor of the broadcasting station:

Resolved, That the House of Delegates of the American Medical Association, recognizing the legal prohibition on the censorship of radio programs, urges on the Federal Radio Commission the necessity for extreme care in the character and qualifications of persons and corporations desiring to broadcast medical programs and a liberal construction in favor of the public of the law authorizing the revocation of licenses that are against public interest.

PSYCHIATRIC SERVICE IN CRIMINAL COURTS

The following resolutions, offered by Dr. T. B. Throckmorton, delegate from the Section on Nervous and Mental Diseases, were adopted:

Resolved, That the Section on Nervous and Mental Diseases hereby declares its adherence to the principles stated in the report of the Committee on Psychiatric Jurisprudence, Section on Criminal Law and Criminology, American Bar Association, and approved by that association at its meeting held in Memphis, Tenn., Oct. 24, 1929, namely:

"(1) That there be available to every criminal and juvenile court a psychiatric service to assist the court in the disposition of offenders.

(2) That no criminal be sentenced for any felony in any case in which the judge has any discretion as to the sentence until there be filed as a part of the record a psychiatric report.

(3) That there be a psychiatric service available to every penal and correctional institution.

(4) That there be a psychiatric report on every prisoner convicted of a felony before he is released.

(5) That there be established in each state a complete system of administrative transfer and parole, and that there be no decision for or against any parole or any transfer from one institution to another, without a psychiatric report."

Resolved, Further that the section recommends that the House of Delegates of the American Medical Association adopt the principles stated above and request the Board of Trustees to take such action as may be necessary to bring about the cooperation of state and county medical asso-

ciations with corresponding state and local bar associations in securing, as far as possible, the adoption of these principles in practice.

MENTAL HYGIENE

The following resolution, offered by Dr. Tom B. Throckmorton, delegate from the Section on Nervous and Mental Diseases, was adopted:

WHEREAS, The problem of the mental disorders and defectives and the mental health of the country constitute one of the most serious situations with which scientific medicine is at this time concerned, and

WHEREAS, The hospitalization and care of an increasing number of mental disorders and defectives constitute one of the most difficult economic situations affecting the medical profession, and

WHEREAS, There is in the organization of the American Medical Association no regularly constituted committee or body especially concerned with this problem; therefore be it

Resolved, By the Section on Nervous and Mental Diseases of the American Medical Association that it recommend to the House of Delegates that the Board of Trustees of the American Medical Association be authorized to appoint a special committee of 5 Fellows of the Association especially interested in these problems with a view to an investigation of the situation and to making a report to the Board of Trustees on the manner in which the Association can be of service in the solution of these problems.

INVESTIGATION OF HOSPITALS FOR MENTAL PATIENTS

The delegate from the Section on Nervous and Mental Diseases submitted the following resolution, which was adopted:

WHEREAS, There has been no fixed policy of the American Medical Association toward the handling of the institutional public in the insane hospitals of the country; and

WHEREAS, There is a growing consciousness of the need for a better understanding of the problems of these institutions especially as regards their medical personnel; therefore be it

Resolved, That the Council on Medical Education and Hospitals be requested to make a thorough investigation of all hospitals caring for mental patients within the next 1 or 2 years whereby a more accurate knowledge of the situation may be obtained and the need of further developments in the field be pointed out.

ELECTION OF OFFICERS

The following officers and members of Councils were elected by the House of Delegates:

President-Elect—E. Starr Judd, Rochester, Minn.

Vice-President—Louis J. Hirschman, Detroit.

Secretary—Olin West, Chicago.

Treasurer—Austin A. Hayden, Chicago.

Speaker of the House of Delegates—F. C. Warnshuis, Grand Rapids, Mich.

Vice-Speaker of the House of Delegates—Albert E. Bulson, Ft. Wayne, Ind.

Trustee—Thomas S. Cullen, Baltimore.

Trustee—Joseph A. Pettit, Portland, Ore.

Trustee—J. H. J. Upham, Columbus, Ohio.

Member, Judicial Council—George Edward Folsbee, Cleveland.

Member, Council on Medical Education and Hospitals—Charles E. Humiston, Chicago.

Member, Council on Scientific Assembly—Frank Smithies, Chicago.

Philadelphia was selected as the next place of meeting.

School Health Department

PRELIMINARIES TO THE SCHOOL DOCTOR'S EXAMINATION

Two developments of sound worth are taking place. They seem to be inevitable and growing. Accordingly, they deserve attention.

The first of these is the practice of postponing the start of the school doctor's examinations for 2 or 3 weeks. During that time the teachers and nurses are busy. One job of the teacher is that of preparing the pupils mentally for the coming of the doctor. The other is to observe her new class for the purpose of becoming acquainted with their individual traits, dislikes, emotional habits, activity inclinations, and so on.

Preparing the pupils mentally means creating a favorable impression toward the physician, creating the attitude of looking upon the doctor as a friend. This means a mental receptiveness on the part of the pupil which may have great significance in the life of an individual in the years after school. Suppose the child from his own deductions learns all he is capable of learning about the doctor and his work. Normally, he should acquire a point of view quite the opposite of that which he develops when his mother drags him off to "see the doctor" when he is ill, and the result is taking medicine and loss of playtime. It is a good thing, instead, for the child to understand the whole story. He should learn that prompt and frequent visits with the doctor may save him a lot of trouble, expense, and unhappiness. He should learn of the good that doctors do rather than giving heed to the "wisecracks" of cartoonists and jokesters. The teacher has a great opportunity to do a bit of training that will affect countless individuals throughout life.

The second point, that of observing pupils, is also important. They are, except in rural schools, new pupils to the teacher. She doesn't know much about them beyond scholastic attainments. But as days go by, she learns that one is a daydreamer, seclusive and shy; another is a difficult discipline problem; then there is the precocious pupil and the pampered one; and so on. She learns of those who drink milk and of those who show no signs of life. These are facts the school doctor does not have time to uncover and yet he is employed to assist with the education of children, which he can and does do with proper assistance. The teacher and the nurse can provide that assistance if given time and told what to do. Then, with the doctor's findings and the nurse's observations of home conditions, it is possible to plan a campaign that will have some chance of helping the individual.

School nurses are assuming responsibilities in the pupil health examination which leaves the physician with more time to use to better advantage in studying the individual child. Some items being undertaken by school nurses are: vision and hearing testing; weighing and measuring; lymph nodes; skin and scalp; spine and joint movability; teeth.

Usually, the nurse's inspection is conducted as a screening process. She merely attempts to sort out those who are free from abnormalities. Those whom she suspects of having some defect are referred to the physician. In any case, the nurse never diagnoses. She goes no further than to find suspicious signs and symptoms.

NOTES OF INTEREST

For school physicians interested in the health of the teacher, there is a splendid treatment of the subject in a pamphlet, "The Teacher's Health", published by the School Health Bureau of the Metropolitan Life Insurance Company. There is no charge.

Incidentally, there is a growing interest in the health of the teacher. More school districts each year are requiring the annual health examination, and in some parts of the country teacher's homes, the "Teacherage", so called, are being erected by boards of education.

It is interesting to note the increasing number of requests being received from physicians and school executives for information concerning the legal right to abolish the annual examination of pupils in favor of the complete examination with clothing removed at longer intervals.

The presence of the teacher and one parent at the examination of a pupil is a standard that is sure to become recognized in the not very distant future. It is only too obviously the correct procedure.

School executives are beginning to be curious about the New York State certification requirements placed upon school physicians. Naturally, it is to be expected, since the move of New York State to certify its school physicians is receiving wide publicity. It is only another bit of evidence accompanying the development of school health work.

Woman's Auxiliary

POSSIBILITIES OF THE WOMAN'S AUXILIARY

Jessie P. Allen, M.D.,

Beloit, Wisconsin

(The following abstract from an address by Dr. Allen, to the Secretaries of Wisconsin County Medical Societies, at Milwaukee, March 1, 1930, contains much of interest and much sound advice to our own auxiliary members.)

"A number of counties in the state are considering the matter of organization at the present time and an active campaign is in prospect.

What is the object of the Woman's Auxiliary to the American Medical Association? It aims to be all its name implies, a reserve force, an aid to that body, banded together to respond to any call from the medical profession, working always toward the advancement of health and education. Its members assist in the entertainment at all American Medical Association Conventions, and aim to promote acquaintance among physicians' families to the end that good fellowship may exist, and to do such work, from time to time, as may be approved by the American Medical Association.

The National Auxiliary has accepted the following recommendations from the President:

(1) To organize auxiliaries in unorganized states and to urge all state presidents to form auxiliaries where there are county medical societies.

(2) To outline health programs, approved by a medical committee, to be presented before clubs, Parent-Teacher Associations, etc.

(3) To secure, if possible, moving pictures to illustrate the value of periodic health examina-

tions, and recommending the same to be made by the family physician.

(4) To recommend to all clubs that they place capable physicians' wives in charge of club health committees, in order to secure authoritative health programs.

(5) To make an effort to place Hygeia, the magazine of health, in every home and in as many public places as possible so reliable health information may be disseminated. Every physician's wife should feel it her duty to promote dependable health legislation and not leave it in the hands of those who are spreading propaganda of the various cults. She may gain much from the club but she can give even more to it by coöperating with the Auxiliary in its Health Education Program.

(6) To assist legislative committees of county medical societies, in promoting good health measures. It behooves all wives of physicians to be conversant on health and medical legislative problems so they may intelligently explain them when requested to do so. They should especially know something of vivisection, and the necessity and advantages of vaccination, for only by intelligent explanation will they be able to help combat the gross mis-statements being circulated at the present time against them.

A county group, *no matter how small*, is significant and each has its responsibility and place in the state-wide movement. The State Auxiliary only exists to help the counties do the real work and it has only in a small measure fulfilled its obligation if it fails to actively interest itself in the organization of county societies.

Where there is a county medical society, there should be an auxiliary, for it has been noted that where such a society exists the doctors exhibit more interest in their medical meetings and that there is more friendliness among themselves as well as among their families, but if the physicians cannot see the reason or need of an auxiliary their wives cannot be expected to be interested. In counties where there is an organization not much will be accomplished unless the doctors' wives feel their responsibilities and render intelligent, unselfish service.

LAY CONTACTS

In all women's clubs there are women of physicians' families as members and leaders; why not take advantage of these contacts to spread the gospel of good health, ethical medical practice and other valuable information. Women are playing a great part in the progress of civilization, due largely to their changed and broadened outlook which came with the franchise, and this new privilege should only add to their obligations to become good citizens as well as good wives and mothers. A woman forfeits neither her own nor her family's happiness by engaging in worth while activities outside of the home; her power for good is greater by having contacts with other women and making her vote count for something vital, through group effort.

The auxiliary gives to its members more power to assist in health work, more concrete ideas as to how they may best serve in moulding public opinion to support laws for the public good.

One does not stand still in medicine but advances or becomes retrogressive. Attending medical conferences and engaging in discussion helps the physician advance in his profession. Doctors' wives can be very helpful in encouraging their husbands to be more regular attendants of their county, state and national medical societies.

In an article sometime back Dr. Woods Hutchin-

son gave some advice to the laity concerning the choosing of a family physician. He advocated getting information as to whether or not a physician was a regular attendant of his medical societies and had post-graduate habit. This information should lead one to make an intelligent and satisfactory choice.

From time to time the National Association sends to the county auxiliaries study programs for their aid and direction, with such questions as the following:

(1) What are the common physical defects in children?

(2) Why should local communities be interested in the educational program for the correction of these defects?

(3) What has your local health department done to advise and encourage parents to have annual examinations for the entire family? Who does the follow-up work? Give statistics showing improvement where such examinations have been followed by corrections.

(4) What health education work is carried on by your local county medical society or by local schools, public or private?

(5) Does your State Health Department have a health education program which reaches your county directly? What special projects are emphasized? Does your town or city derive any benefits from same?

(6) Have you asked your advisory committee from your local medical society to give you a program of educational work which will assist them?

(7) Has your organization assisted actively in promotion of health education programs under directions of State, County and City Health Departments, Boards of Health and local medical associations?

Such interests as these give an auxiliary a choice of activities. Other health education projects I might suggest are: assisting health officers in promoting more respect for the laws regulating quarantine, education as to the value of toxin-antitoxin, disseminating information and advice for the relief of goiter and any other public health need.

Health education programs should be outlined to meet the needs of the individual county and locality. The whole secret of keeping an auxiliary interested in its work is making its programs very definite and not too burdensome.

And in closing may I say, this organization offers to the doctors' wives an opportunity for service denied women of any other group and gives them incentive to live up to the challenge of their auxiliary program."

County Society Reports

ATLANTIC COUNTY

Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The stated monthly meeting of the Atlantic City Hospital Staff was held Friday, August 22, 1930. The meeting was called to order by Dr. David B. Allman, president. Dr. H. L. Harley presented his report of the Department of Ophthalmology. His statistical survey presented a total of 412 cases treated in the dispensary from July 1 to December 31, 1929. Dr. Harley also presented a classification table of diagnoses. Upon comple-

tion of his report he presented several interesting cases.

Dr. Sidney Rosenblatt presented a statistical report of Dr. Samuel Barbash, Chief of Medical Service. His report comprised an analysis of 16 cases of pneumonia and a tabulation of the types of cases admitted to the wards. Dr. Samuel Barbash analyzed the Medical Service for a period of 3 months, February, March and April 1930. Among the cases presented were the following:

A boy of 18, while walking on the boardwalk, collapsed with a sharp pain in the neck and chest and with marked palpitation of the heart. The principal findings were absence of tactile fremitus, hyper-resonance of the outer portion of the chest, absent breath sounds, tubular breathing close to the spine, and some dullness at the base of the lung. The heart was moderately displaced to the left. Diagnosis: Spontaneous pneumothorax.

There was no history of tuberculosis. A guinea pig was injected on March 15 with the patient's sputum, and on April 5 the guinea pig was found dead with no evidence of tuberculosis.

X-ray reports were as follows: On March 3, the day after admission: "Pneumothorax of the right chest, with uniform compression of the lung, which shows no obvious pathology. No evidence of hemorrhage in the pleura. The left lung shows very little emphysema and there is no obvious pathology in this lung. The heart is displaced to the left moderately." Report on March 4: "The air in the right chest is being rapidly absorbed; the lung is about half expanded; the apex is opposite the upper margin of the fourth interspace near the spine; the outer border is in a line corresponding to about the middle of the scapula; perpendicular; no obvious pathology seen in the compressed lung."

The patient made an uneventful recovery and left the hospital in good condition on the seventeenth day after admission.

A. M., age 27, was admitted to the ward on February 1, 1930. The provisional diagnosis was pyelocystitis and drug delirium. The history as written by the intern is as follows: "The patient is a highly neurotic, white female, brought to the hospital from the jail in a muttering delirium. Had refused food for several days. The lips are covered with herpes or sordes. There is some dental decay. Chest and heart negative. There is a scar in the region of the gall bladder, also one on the lower abdomen."

All other physical examination reported as negative.

When I first saw this patient she was unconscious, muttering, and groaned when pressure was made over the left hypochondrium. The pain caused by pressure in this region was sufficient to rouse her. Her temperature was normal on admission, but the next day rose to 100°. It remained in the region of 100° for 2 days after which it climbed rapidly, and on the fifth day she died with a temperature of 108°. Her pulse rose in proportion, until it was impossible to count before death. Her respirations rose on the last day to between 60-70.

The diagnosis of pyelocystitis was made on the report of a urine examination which had 150-200 pus cells per field, from a catheterized specimen.

Blood count on admission was approximately normal: Red blood cells 4,130,000; white blood cells 7300; hemoglobin 78%; polymorphonuclears 63%. Wassermann was negative; Kahn 1+. Blood culture was negative. Culture from the urine showed *Bacillus Coli* and a gram negative unidentified bacillus.

The post-mortem examination is as follows:

"The body is that of an adult white female about 27 years of age. On external examination no marks of violence can be detected. There are 2 abdominal scars, 1 in the midline extending from the umbilicus to the symphysis pubis, the other is to the right of the midline between the xyphoid and the umbilicus, about $3\frac{1}{2}$ in. long.

Skull. The brain shows extensive petechial hemorrhages over the entire surface of the brain and very much injected.

Chest. Few adhesions between visceral and parietal pleura of the right lung. The right lung presents no gross pathology. In the left pleural space there is about 100 c.c. of bloody fluid. The left lung is markedly congested. No other pathology. The pericardial sac does not contain any free fluid. The heart is small and flabby. The musculature is soft but not friable and contains much fat. No other pathology of the heart.

The left diaphragm. About $1\frac{1}{2}$ in. to the left of the spinal column there is a necrotic opening surrounded by adhesions; when this opening was disturbed there resulted a flow of bloody purulent material. The cavity was followed and found to be retroperitoneal about $1\frac{1}{2}$ in. in diameter.

Abdomen. Viscera present showed no gross pathology.

Pelvic organs. The uterus, both fallopian tubes, and the right ovary were absent. The left ovary is present. It is cystic and contains a hematoma very small in size.

Anatomic diagnosis. (1) Petechial hemorrhages, meningeal; (2) Fatty infiltration of the heart; (3) Retroperitoneal-subdiaphragmatic abscess; (4) Serosanguinous effusion into left peritoneal cavity."

The last case I wish to report is one of hereditary familial telangiectasia. I was to have shown this patient at the April clinic, but could not do so owing to the fact that the patient signed a release and went home. At the time I was also to give a brief sketch of this interesting condition, which I will give now:

Telangiectasis is a dilatation of the terminal vessels, i.e., the capillaries, but it is a term also used to describe dilated venules. In 1896 Rendu was the first to associate familial epistaxis with the multiple telangiectases that constitute the chief features of this pathologic condition. Osler in 1901 was the first to excite clinical interest in this condition. It may be defined as an hereditary abnormality characterized by the formation of localized dilation of capillaries and venules, which occur chiefly in the skin of the face and in the mucous membranes of the nose and mouth, and which give rise to apparently spontaneous hemorrhages, most common in the form of recurrent epistaxis. Over 30 families affected with this disease have been reported in the literature. Among these families over 200 cases are mentioned. In addition to these there are a number of isolated, nonhereditary cases which have been reported. Their symptoms are such as to classify them in this group.

Fitz-Hugh states that contrary to the belief that there are no skipped generations, there are many cases in which atavism has been proved. Goldstein mentioned a number of isolated cases which Fitz-Hugh believes could be traced to atavism. Osler's first patient had a grandniece, a granddaughter of his eldest sister, who herself was afflicted with the disease. This grandniece had frequent epistaxis. The mother of this young woman was free from disease, yet transmitted it to her daughter. Others report cases where there was distinct skipping of 1 or 2 generations, and appearance in the second and third.

Diagnosis. The presence of a typical family history makes the diagnosis easy in many instances, but a review of the errors in diagnosis shows this does not always obtain. A number of cases were reported as hemophilia which afterward were proved to be of this type. Some cases were reported as having been treated for pernicious anemia. Others have been diagnosed as chronic purpura hemorrhagica. A telangiectatic spot can be made to disappear by pressing a glass slide over it, while purpura hemorrhagic spots do not disappear on pressure. Purpuric spots in time may disappear. Telangiectatic spots are more permanent. While a number of these cases have their lesions in the mucous membranes of the nose and mouth, others have lesions elsewhere in the body. Gastro-intestinal hemorrhages are sometimes the result of rupture of these telangiectatic areas. Hemorrhages from the throat said to be due to tuberculosis are in some cases probably due to telangiectases of the pharynx.

The patient we had in the hospital from April 2-16, 1930, was reported by Dr. Hyman I. Goldstein, of Camden, as having hemiplegia in 1918 without evidence of lues, hypertension, cardio-renal disease or arteriosclerosis. He attributes this to rupture of telangiectases of the cerebral cortex. Several cases have been reported to have had metrorrhagia and menorrhagia without any obvious cause, which would indicate the probability of telangiectases of the birth canal. None of the cases reported in the literature have evidence of hematuria or other evidence of telangiectases in the urinary tract, but there is a possibility that some cases of so-called essential hematuria may be of this type. I recall several years ago during my service in the wards of the hospital, a case of so-called essential hematuria which we were unable to check, and which was operated upon by Dr. Senseman. The only evidence at the time of operation was a number of congested capillaries in the pelvis of the kidney. The kidney was removed and the patient made an uneventful recovery, with apparently no recurrence. There was, however, no follow-up. I am inclined to believe, after reviewing the matter in my mind, that this may have been a case of hemorrhagic telangiectasis.

The patient I am referring to had been bleeding from the mucous membranes of the nose for a number of days, and to such an extent that her blood count dropped to 1,560,000. She had in addition to her nasal telangiectases, spots on the tongue, the mucous membranes of the mouth, and on the lips. She has a sister who bleeds, and all other females of the family are subject to hemorrhages. The males are not affected.

There are 2 theories as to the mechanism of these hemorrhages: One is that there is an underlying hemorrhagic diathesis or blood dyscrasia as the determining factor; the other is that the telangiectases are primary, and the hemorrhages are mechanical by-products resulting from rupture of these vascular defects. Steiner is of the first opinion, and Fitz-Hugh of the latter.

The chief complaint in most of the patients has been recurrent nose bleed since childhood. The telangiectases, however, do not appear until adult life is reached, usually after the twentieth year. Most cases, even children, were found to have telangiectases of the nasal mucous membranes, which are usually the first manifestations in all patients exhibiting initial nose bleed. Patients with this condition usually do not bleed abnormally from trauma, other than the traumatized telangiectases. Blood studies by most authors reveal no abnormalities except secondary anemia. Blood coagulation time in uncomplicated cases

was found to be normal. Blood platelets also were normal. The epistaxis was usually the result of slight traumatism, insignificant irritations and vasomotor or mechanical congestion.

The treatment of these cases has been very unsatisfactory. Fitz-Hugh recommends whenever possible to have these telangiectatic areas destroyed by cauterization under general or local anesthesia, by either the electric needle or chromic acid crystals touched against the spots, particularly the intranasal ones. Carbon dioxide snow has also been used. Those that are easily accessible, such as on the mucous membranes of the mouth, tongue and lips, are best destroyed by electro-dessication. Patients with telangiectases of the stomach and brain cannot, of course, be treated. The usual method of replacing lost blood is necessary for the health of the patient. Iron, arsenic, liver, and the many other medical means are of value. Obviously it is futile to treat cases with no actual blood dyscrasia by methods used to control such dyscrasias, although all have been tried.

Discussion followed by Drs. Pilkington, Olmstead, Axilrod, Salasin, Stewart, Carrington, Fish and Marcus.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The first fall meeting of the Bergen County Medical Society was held at the Hackensack Hospital on Tuesday evening, September 9. The minutes of the previous meeting were read and approved. The following members were elected to membership: Drs. Victor A. Blenkle, of Teaneck; Orlin V. Wry, of East Rutherford, and Benjamin Seiler, of Cliffside. The applications of the following men were read: Walter L. Jordan, R. O. Johnston, Donald B. Hull, Paul A. Kennedy, Wm. G. Mears and Wm. P. Kelley. For Associate Membership: Drs. Juan R. Payawall and David Polowe.

The following amendments to the By-Laws were passed:

THE EXECUTIVE COMMITTEE

SECTION I.

The executive committee shall consist of 7 members, 2 of whom shall be the president and the secretary, who shall act in their respective capacities on the committee. The president shall, with the approval of the society, appoint the remaining members of the committee for a period of 1 yr. and until their successors are chosen. No member of the executive committee shall be appointed who has not been a member of the society for at least 5 yr.

SECTION II.

(a) It shall be the duty of the executive committee to meet once a month previous to the regular monthly meeting of the society and the secretary shall report its activity at that meeting.

(b) It shall be the duty of the executive committee to manage the business of the society, subject to its approval.

Dr. Clarke appointed the following men members of this committee: Drs. Clarke and Snedecor, ex-officio; Drs. Payne, James, Littwin, Morrow, and Vroom. He also said that he expected the treasurer to be present at the meetings which will be held the first Tuesday night of each month at his home at 9 p. m.

Several visitors were present. Dr. Liva introduced Dr. Quigley, Third Vice-President of the

State Society, and also Drs. Sweeney and Niemeyer of Hudson County. Dr. Payne introduced Dr. Bosch who is on leave of absence from a Missionary Hospital in China. Dr. Quigley was called upon for a few remarks.

The secretary reported on the affair of Dr. Petters which was elaborated upon by Dr. Opitz.

Approval of the bulletin and the efforts of the secretary were spoken of by Dr. Littwin who insisted on a rising vote of appreciation.

Dr. Clarke announced preliminary plans for the Annual Dinner to be held in October.

Dr. William L. Vroom, Chairman of the Ethics Committee, reported on the complaint made against Dr. Payne for advertising in a Minstrel Program. Dr. Payne explained that it was published without his knowledge. The society expressed its belief in the good faith of Dr. Payne.

Dr. G. M. Levitas gave a 10 minute report on the visit he made to the A. M. A. convention in Detroit, during July, as follows:

REPORT OF THE CONVENTION

The eighty-first annual session of the A. M. A. was held at Detroit, June 23 to 27, 1930. The sessions were held in the spacious Masonic Temple. There were registered about 5000 physicians, 2 of whom were from Bergen County. The scientific assembly was composed of clinical lectures to the convention as a whole by authorities both foreign and American, and the reading of papers and discussions of various subjects in various sections. These sections were held and timed so that there were no conflicts with major departments. This permitted the physician to choose his program very much to his liking. The scientific exhibit was the largest in the history of the Association and comprised every department of medicine and surgery, both theoretical and practical.

It is to the great credit of the profession that so many of our most able colleagues have given so freely of their time, energy and money for the improvement of our medical knowledge.

Time does not permit any detailed discussion of the exhibit, but suffice it to say that those who attended the session were well rewarded.

My time was generally devoted to pediatrics and, where possible, lectures by authorities of note in other departments were attended. I was especially interested in the paper of Dr. O. W. Bethea, of New Orleans, Professor at Tulane University, who compared the mortality of the present treatment of pneumonia with that of preceding years. His method consisted chiefly of the treatment of the patient as a whole and not of the pulmonary lesion. The over treatment of the patient with pneumonia was condemned. The comfort of the patient, the conservation of rest, the high carbohydrate and low protein diet and the mild alkalization with sodium citrate where the cough was not too productive and the inactivity by the physician were the cardinal points of his treatment. He especially condemned all local applications, all electrical treatments and all oxygen tests. Under this régime of treatment in 12 yr. he has reduced mortality from 30-5%.

Dr. Chevalier Jackson gave a lantern and motion picture demonstration of the bronchoscopic observations of the mechanism of physical signs. The physical signs being the result of mechanical causes, direct inspection of the interior of the bronchi at the time the signs are being produced gives important data. These signs were ably demonstrated and covered excellently the field of physical diagnosis. Dr. Jackson, in his endobronchial studies, showed 3 different types of obstruction: The stop-valve, the check-valve and the bi-

pass valve. The mechanism of signs in cases of obstruction of foreign bodies was compared with the signs of other pathologic conditions. In conclusion, Dr. Jackson said: "Please remember that it is not always asthma that wheezes, it may be anything from peanuts to cancer." I might add that he condemned the use of atropin preoperatively because it dries the secretions, making for tenacity.

One of the most interesting lectures was given by Dr. Harold Brunn, of San Francisco on "Surgical Pneumonia; the Mistakes in Diagnosis and Treatment". By a series of x-rays taken of operated cases immediately after operation, and daily thereafter, he demonstrated the progressive changes in the lungs until the final stage of pathology which we clinically name "post-operative or surgical pneumonias".

The pulmonary accidents post-operatively are of 2 main classes: (1) Pulmonary embolism, which generally occurs after the seventh day, is acute in its onset, attended with severe pain etc, and is productive of blood tinged mucus. (2) Atelectasis of the lung is the other post-operative accident which is a most common sequel and is generally confused with surgical pneumonias. It occurs from 1-5 days after surgery and produces a more or less thick mucous secretion. It is induced by too long pre-operative period in bed, bronchitis, or any factor reducing vitality, especially in upper abdominal operations due to diaphragmatic irritations limiting motion. By means of x-rays of the chest mentioned previously, he demonstrated that the bugbear of our surgical mortality was not post-operative pneumonia, but rather massive collapse of the lung due to the plugging of the bronchi by tenacious mucus, regardless of the nature of anesthesia. As a prophylactic measure, CO₂ inhalation in combination with the anesthesia was recommended. The treatment consisted of CO₂ inhalations, to stimulate respiratory effort, and postural treatment to dislodge the plug. These treatments are quite successful, but bronchoscopic treatments may be resorted to if these fail.

Frank H. Lahey, of Boston, in the chairman's address, read a paper on the treatment of gastric and duodenal ulcer. It was surprising to hear such words of wisdom applied to a medical treatment from the mouth of so noted a surgeon. His treatment was 3 weeks in bed and a visit every month of the year with the usual antacid and antispasmodic treatment.

The cause of the high mortality of surgery after hemorrhage he advised the use of other measures for its control. The indication for immediate surgery was complete pyloric stenosis. His preference for surgery was after a year of pre-operative treatment as mentioned above.

In the Department of Pediatrics a great deal of attention was paid to the newer conception of nutrition. While the time old idea of iron as a factor in our food stands most prominently, copper is coming to the fore as important mineral requirement, and may be found amply in carrot tops.

The guest speaker, Dr. Edward Mellanby, of Sheffield, England, and his wife presented excellent demonstrations of the diseases produced and prevented by certain food constituents. It was a most interesting and enlightening paper and I would advise all who wish to understand the modern conception of nutrition to read this paper when it appears in the A. M. A. Journal.

In contrast to the theory expressed in this paper, an address by Dr. Clara M. Davis, of Chicago, on "What Babies on the Self-Selected Diet Eat", demonstrated that the instinct of the infant guides

him along pretty well. A large number of infants in a nursery were presented at feeding times with a large number of foods placed on a tray, and permitted to eat as much as they wished of any and all foods. These foods were of course what is usually given by the physician and prepared properly. The result of the selection of these foods showed very healthy infants at various stages, regardless of the quantity or type they ate. It was demonstrated that the infant instinctively balanced the protein, fat and carbohydrate intake. I might note that spinach was the most unpopular of all foods.

Psychology in pediatrics was ably discussed by Bronson Crothers, of Boston. He felt it was the duty of every physician who guides the destiny of the child's physical development to accept the responsibility of guiding the mental development.

Professor John Anderson, of Minneapolis, in a paper entitled "Pediatrics and the Training of Children", insisted that the physician had the better opportunity of observing the early rather than the late stages of maladjustments and is in a more fortunate position than the specialist to remedy them before they reach a point at which they become difficult.

In a discussion of "Ketogenic Diet Treatment in Epilepsy", covering a period of 9 years' experience, Dr. H. F. Helmholz, Rochester, Minn., concluded that about 30% of the patients had been free from attacks, 20% more have been improved and 50% have been failures.

Dr. J. L. Morse, of Boston, read a paper on "Diagnosis and Prognosis in Pediatrics". He stated that in most cases a diagnosis should be evident from history. If not, it is usually plain after physical diagnosis. It is bad practice to do unnecessary laboratory work. The laboratory was founded for the express purpose of aiding in making a diagnosis for the benefit of the patient, and not for the financial enrichment of the physician. The object in diagnosis is not to give a name to a disease, but to formulate a treatment. Prognostic ability depends a great deal on the judgment of the physician, and frequently upon whether he is an optimist or a pessimist.

This briefly touches the high spots of the convention but there were so many other points brought out which would be of great help to any who were fortunate enough to attend. The next convention will be held in Philadelphia, and if I have stimulated the least bit of enthusiasm for attendance at that convention, I shall feel amply repaid for the little time I spent in preparing these few notes.

The chair was then given to Dr. Littwin, Chairman of the Program Committee, who introduced Dr. Joseph M. Marcus, Gastro-Enterologist at Mount Sinai Hospital, whose subject was "Modern Routine Procedure for Examination of Gastro-Enterologic Patient".

After discussion, the next speaker, Dr. R. Burton Opitz, was introduced and read a paper on "The Clinical Significance of High and Low Blood Pressure".

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

The regular meeting of the Burlington County Medical Society was held Wednesday, September 10, 1930, at the Burlington County Hospital, Mount Holly, with Dr. Kuder presiding; 22 members and guests were present. The minutes of the previous meeting were read and approved.

The members voted to present their medical

pageant at the next state society meeting if requested to do so. This medical pageant was given by members of the society at the celebration of the One Hundredth Anniversary of the county society.

Dr. Darlington reported that the American College of Surgeons would approve the Burlington County Hospital if all members of the medical staff would sign the by-laws in duplicate. All members present signed.

Dr. Newcomb stated that the usual medical fee for commitment of indigent applicants to the county asylum is \$5. He believed that the commitment of indigent applicants to the tuberculosis sanatorium came under the same heading, and the same fee should be paid. He will report further at the next meeting.

Dr. D. H. B. Ulmer, Chairman of Section on Specialties, announced the following program: "Accessory Sinus Disease and Its Relation to Hay Fever and Asthma", by Philip S. Stout, M.D., of Philadelphia:

"I desire to express the thanks of Dr. E. B. Gleason and myself for the privilege of speaking to this society. I desire also to thank Dr. Ulmer, who made the arrangements. I trust you will be repaid for the sacrifice you have made to be present this afternoon.

My assignment of Accessory Sinus Infection in Relation to Bronchial Asthma and Hay Fever is a very big one and I can only hope to bring out some of the more important points of it.

Under the term allergy we now consider a group of conditions or illnesses as bronchial asthma, hay fever, urticaria, certain eczemas, food allergies, such as laryngeal edema that follows ingestion of shellfish, and certain bowel conditions. Some persons are potentially allergic. By that we mean that they are inclined to have allergic manifestations. They have inherited a tendency to allergic states. The best explanation we have is that in these individuals there is physicochemic balance which is too fine and some slight change produces an imbalance. Internal secretions must be considered and we think that along that line eventually the cause and cure will be found but until then we must face facts as they now are. All ages from birth to old age are subject to these allergic manifestations. All races—we have had whites, colored, Chinese, Hindu and Indian. Allow me to call your attention particularly to children. Sinuses are hardly thought of in little children yet we find almost nearly as much sinus trouble there as among adults. We have by means of suction taken pus from the nostrils of children under 1 yr. of age. We have injected lipiodol for diagnosis of chronic antral conditions in patients as young as 4 yr. and found some chronic thickening of the mucous membrane. We have injected lipiodol in patients as old as 69 yr.

All allergic patients can be grouped roughly into 3 groups: (1) Those who are positive or are hypersensitive to some nitrogenous substance, such as feathers, horse-dander, etc., or in hay fever, ragweed, grasses, trees, etc., and by ingestion of shellfish, egg, etc. These are a large group and respond to desensitization and are greatly benefited thereby. (2) There is a group that is just mildly hypersensitive. (3) There is a group that is not hypersensitive.

These last 2 groups are where the diagnosis is in some other foci or cause for allergy. Here is where we should leave no stone unturned to find the pathology that may have to do with the continuance of the attacks.

How do we diagnose conditions of the antra of Highmore? And incidentally the antrum of High-

more is the sinus most often affected. The order in which they are found to be affected are the antra, ethmoids, sphenoids, frontals. We should also think of the antrum and the cells in the mastoid area.

- (1) History
- (2) Inspection, nares, throat, post-nares
- (3) Transillumination
- (4) Washing antra
- (5) X-rays
- (6) Antroscopy
- (7) Lipiodol or some other Roentgen ray opaque substance injected into the antra and x-rays made.

Comparing with normal and one antrum with the one on the other side. If thickened mucous membrane, pus, polyps and polypoid degeneration are present then you must decide how much this is a factor in the continuance of the allergic symptoms and govern yourself accordingly. We have found that 35-50% of all bronchial asthma cases have chronic sinus diseases. Incidentally hay fever patients per se do not as a rule have chronic sinus trouble to any great extent. Might we conjecture a bit and say that in a measure their yearly sneezing time clears the accessory sinuses. However, if there are any polyps (nasal) or obstruction in the nose they should be removed and if sinus trouble is found it should be treated. We have found better results with the desensitization treatments after these measures were taken.

I believe that the nose and the accessory sinuses are the trigger areas for bronchial asthma and hay fever. Have this trigger area as nearly normal as possible and there is less likelihood of attacks of hay fever or asthma.

The operations we do for maxillary sinus involvement are: (1) Making a large opening under the Inferior Turbinate; (2) Caldwell Luc; (3) Denker. The last we like best. The final results in bronchial asthma following operation are not as yet entirely satisfactory. However, in some cases operated on the results have been most satisfactory. We are trying to find out why this is not so in all cases."

"Methods of Diagnosis of the More Common Diseases of the Ear", by Edward B. Gleason, M.D., of Philadelphia.

With the anatomy of the ear ever in mind, Dr. Gleason reviewed his subject of the most common diseases of the ear. He commenced with the outer ear. The pressure bandage and wet dressings were valuable. In stitching the outer ear take only the skin rather than the cartilage if possible. Furunculosis of the canal is common in fresh water bathers, while middle ear infections predominate with salt water bathers. He continued through middle and internal ear infections. It was an interesting review of conditions so common to the general practitioner and was enjoyed by all.

An excellent repast concluded an exceedingly instructive afternoon.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Inaugurating the year's program with a social session, members of the Gloucester County Medical Society and their wives were present at a dinner and evening's entertainment at the Woodbury Country Club, September 23.

The members and guests, numbering 54, were royally banqueted, with Steward Fred Beukers preparing a most elaborate meal.

Acting as toastmaster, Dr. Duncan Campbell, af-

ter making a few preliminary remarks, introduced the guests, who included Dr. and Mrs. George T. Tracy, Burlington County; Dr. and Mrs. Summerill, Dr. and Mrs. Church, Salem County; Dr. Aitkin, Cumberland County; Dr. and Mrs. Oram A. Kline and Dr. Emma Richardson, of Camden County; Dr. I. P. Strittmatter, of Philadelphia.

A fine address was given by Mr. William H. Albright, postmaster of the city of Woodbury, and Dr. Gilbert J. Palen, well known nose and throat specialist, of Philadelphia, and a resident of Woodbury.

The dinner was interspersed with delightful renditions by a quartette, Miss Marie Townsend, Miss Weiss, contralto; Miss Cora Schwenger, pianist, and Mr. Leslie S. Grove, basso.

Filer's orchestra furnished music to an appreciative audience, who later danced to the newest musical hits.

Those attending this interesting meeting and banquet included Dr. and Mrs. W. J. Burkett, Dr. and Mrs. S. F. Ashcraft, Dr. and Mrs. C. A. Bowersox, Dr. and Mrs. Duncan Campbell, Dr. and Mrs. H. B. Chalfant, Dr. and Mrs. H. B. Diverty, Dr. and Mrs. C. F. Fidler, Dr. and Mrs. R. K. Hollinshead, Dr. and Mrs. James Hunter, Dr. and Mrs. I. W. Knight, Dr. B. A. Livingood, Miss Livingood, Dr. and Mrs. G. J. Palen, Dr. and Mrs. Paul Pegau, Dr. and Mrs. C. I. Ulmer, Dr. and Mrs. J. H. Underwood and guest, Dr. and Mrs. F. G. Wandell, Dr. and Mrs. O. R. Wood, Dr. Edwin Ristine and guest, Dr. Dorothy Rogers and guest, Dr. Elinor Seidler, Dr. and Mrs. William Carpenter, Mrs. George Reading.

PASSAIC COUNTY

Frank W. Ash, M.D., Secretary

The regular meeting of Passaic County Medical Society was held at the Health Center in Paterson, at 9 p. m., September 13, 1930. The meeting was called to order by President Morrill and the minutes were approved as read.

Drs. Spickers, Hagen and Murn discussed the use by Dr. Kowalski of some signs in his office, which have been removed by him since he learned they were unethical. Following this discussion 3 applicants, Drs. Leon A. Smith, Harold J. Durant and Louis J. Kowalski were elected to membership.

Dr. Scott, of Saint Lukes Hospital, New York City, read a paper entitled "Practical Medical Management of Diabetes", the paper was simple, clear and very helpful to the general practitioner. After a discussion of the paper by Drs. Murn, Hagen and Markel, a rising vote of thanks was given Dr. Scott.

Dr. Carlisle, as Chairman of the Legislative Committee, reported that the question brought up by Dr. Joseph, regarding better compensation for hernia operation, was to be referred to the Welfare Committee of the State Society. Dr. Carlisle thought the endorsing of the activities of the National Committee on Birth Control should be referred to the society as a whole. On this suggestion, a motion to endorse the action of the national committee was made and carried.

The following resolution, regarding Dr. Veenstra's death, was accepted by the society and a copy sent to his family:

"The untimely death of Dr. William Veenstra, at the early age of 46 years, following an operation for the removal of the larynx, has taken from the membership list of the Passaic County Medical Society an active member and one who served

the society in several capacities during his career. He died May 17, 1930.

Dr. Veenstra was well thought of by a large clientele of patients, many of whom were his personal friends for he had a marked ability to make and hold friendships. He was well thought of by professional brothers in this society for his good fellowship and comradeship, and his ever-ready, cheery optimism was always in evidence in any gathering with his fellows.

Therefore, be it resolved by the Passaic County Medical Society, that it deeply feels the loss sustained by the death of Dr. William Veenstra, that the above paragraphs express its sentiments and resolution be spread upon the minutes of the society and a copy forwarded to Dr. Veenstra's widow.

Committee on Resolutions,

J. A. MacLay,
Henry Cogan,
A. W. MacGregor."

Dr. Spickers asked if doctors are to be allowed to file liens against liability cases as hospitals, nurses and lawyers are permitted to do. Dr. Morrill, as a member of the Welfare Committee, said that doctors had intentionally not been included this year, but that next year an attempt would be made to give them the same privileges which others now have. A resolution was made by Dr. Spickers and carried by the society to the effect that all efforts be made to secure for doctors and nurses the same privileges as the passage of this year's bill on liability cases secured for hospitals and lawyers, and that a copy of the resolution be sent to the State Welfare Committee.

Following this the meeting adjourned.

UNION COUNTY

Summit Medical Society

William J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, September 23, 1930, at 8.30 p. m., with President Smalley in the chair, and Dr. Eason entertaining. Those present were: Drs. Allis, Byington, Dengler, Disbrow, Eason, Hallock, Johnson, Lamson, Meeker, Meigh, Milligan, Moister, Morris, Pollard, Prout, Smalley, Tator and Wolfe; and the following guests: Drs. Sly, Smith, Thomson and Whitehouse. The minutes were read and approved.

Photographs of the members of the society, taken at the Annual Dinner, were shown, and it was announced that orders for same, at \$1 each, could be made through Dr. Meigh.

The subject of the evening was "The Prognosis of Arterial Hypertension".

Papers were read by Dr. Dengler and Dr. Eason.

Dr. Dengler summarized the etiology and symptomatology, and Dr. Eason took up the prognosis of the disease. Many factors enter into the prognosis, such as age, duration, degree of arteriosclerosis, present, diastolic pressure, heredity, and the amount of renal or cardiac disease present.

Dr. Eason described a simple test by which the relaxability of the vascular walls may be determined, viz., the inhalation of amyl nitrite, with B. P. readings before and after. A drop to normal, or nearly so, gives a much better prognosis, under appropriate treatment, than if the B. P., especially the diastolic, is unchanged.

The subject was thoroughly discussed by Drs. Pollard, Byington, Moister, Meigh, Thomson, Morris and Smith.

Adjourned. Refreshments.

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SECOND THOUGHTS ON RENÉ DESCARTES*

HARRY M. HALL, M. D.,
Wheeling, West Virginia.

"And when the tempter came to him he said, If thou be the Son of God, command that these stones be made bread.

But he answered and said, It is written Man shall not live by bread alone but by every word that proceedeth out of the mouth of God.

Then the devil taketh him up into the holy city, and setteth him on a pinnacle of the temple.

And saith unto him, If thou be the Son of God, cast thyself down; for it is written, He shall give his angels charge concerning thee; and in their hands they shall bear thee up, lest at any time thou dash thy foot against a stone.

Jesus said unto him, It is written again, Thou shalt not tempt the Lord thy God.

Again, the devil taketh him up into an exceeding high mountain, and sheweth him all the kingdoms of the world, and the glory of them;

And saith unto him, All these things will I give thee, If thou wilt fall down and worship me.

Then saith Jesus unto him, Get thee hence, Satan; for it is written, Thou shalt worship the Lord thy God, and him only shalt thou serve." (Gospel of St. Matthew, Chap. 4, verses 3-10.)

Irrespective of what any man's religious beliefs may be, or if by any chance he has none at all, the above verses still are heavily charged with meaning and perhaps have their counterpart somewhere or other in every human philosophy. Whether you believe Christ to be the divine son of God, or a mere man like the rest of us, or perhaps a myth, changes not one iota the forcefulness of the quotation from Matthew. Likewise, the devil has his many interpreters. That he exists is quite commonly doubted, while others see his

presence in every act they do not condone. As I have not used the verses to unravel any religious question, I therefore leave that side of their meaning to those following such matters to unravel. I am divesting these verses of all their ecclesiastic significance and mean to apply them only to *The Medical Scene*. Therefore, with no blasphemous intent, and with all due reverence and respect, I make bold to substitute "The Medical Profession" for "Christ" and industry acting through "Civilization", in the modern machine-like mode, for the "Devil". The old idea, of the one being altogether essentially good, and the other inherently bad, I entirely erase from the picture.

In this colloquy "Civilization" takes the "Medical Profession" up into the last story of an immense, modern skyscraper that juts into the horizon like a Mount Hood, and asks with all deference if it thinks for a moment that it has any special qualities that will enable it to dash itself down against the citadels of Trade and Industry—and expect its traditions and ethics to save it from immediate destruction. In the second instance, Civilization again asks Medicine, after they have both ascended in an airplane to dizzy heights, if it realizes that it can have all that lies below, *up to a reasonably high standard of living*, if it will just cease being so individualistic, and conform to the general picture of acquiescence that is at present being exhibited by all other professions, callings and vocations, including the liberal and applied arts.

It is indeed an enthralling spectacle. There stands Medicine, a tall distinguished figure

*Address delivered at the 164th Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 12, 1930.

with dark grey piercing eyes, a kindly yet firm mouth; a square jaw but coming to a point in sensitive outline, and a mobile face. His hair is dark but flecked with grey; a noble head sits squarely on broad shoulders having a slight stoop—the heritage of years of application. A fine, manly figure he has, and such remarkably fascinating, expressive hands that seem to know a language of their own. He seems to breathe an atmosphere of confidence. He seems to radiate strength and decision. He seems to be a man of such individuality, such independence, such character, such God-like characteristics, reminding you of some old Grecian statue—and yet there he appears in uncertain mood, with a fleeting air of hesitancy, listening to the voluble argument of the other personage who, with constant gesturing, points out to him all the wide expanse of underlying picture. And there is Civilization, in the latest tailoring of the Machine Age, accoutrement of the richly sartorial elegances of Trade, Industry and Commerce. He, too, is a personage to reckon with. An athletic figure, grown stout with the viands of prosperity. His head is somewhat round, and such hair as he can boast of, amounts to little. But it is no weak, Nero-like countenance that he possesses. Golf has kept him fit. His face is somewhat tanned. His eyes a steely blue. His complexion ruddy. His nose is straight. His mouth a straight line, too. His jaws the bull-dog type. And over it all broods a far-away look, as if he has contempt for whatever he is actually doing. A fixed smile is his but one knows it can be replaced easily, by a cruel stare of determination and resourcefulness. One cannot escape the idea that he stares out as does the confident reptile, and can be as relentless and as forbidding. But his whole outline betokens intelligence, power, and the constant experience of obtaining what he wants. Failure is not written in his actions. Success, to him is a common episode and all he does is crowned with laurel. The only thing he lacks is the very thing we think we prize—a faculty for being in his own presence for very long—alone. While he is all-powerful he well knows it has not come to him through himself—although he does style himself a self-made man.

It comes through monopoly and by substituting system for personality.

There stand the two of them, up in the great heights, looking down on the world beneath.

"You doctors have not long to live", says Civilization.

"We do die early many times", replied Medicine.

"Why spend the 30 or more active years you have in uncertainty then", asks Civilization.

"The philosophy of all life spells it as uncertain. There is no such thing as being certain. Were we sure, then would we have unlocked the secret of life", said the Doctor softly.

"You are wrong, I think", said the other. "What I *will* to do generally comes to pass. It sometimes takes longer than I think, but it comes.

"You are satisfied with too little." The doctor said this with some show of spirit.

"Oh, I know what you mean", replied Civilization. "You intimate that I am happy over the triumphs of the flesh. I am material. All I want to see is the wheels go around. The trains move. The furnaces flare. Well, what would there be to life if all that Industry offers were obliterated? Nothing for men like you to feed upon. The soul, if such there be, can only express itself through the material. You are old-fashioned. No one writes poetry any more. Romance is enjoying new sensations. Love is passion dressed up in other clothes. We've learned all about that. Religion is just something that gives you rest from your activities. The soul—well, who ever saw it? It is nothing but electric force anyway. Your brain is electrical. Your nerves but soft grey wires. Your body a chemical compound. Why do you persist, my dear Sir, in clinging to this idea of personality? We all come in with so many electrons to our credit. We use up so many short and long waves in expressing these electrons and when we have used them all—we die. That's all there is to it. Some of us have more electrons than others—and we succeed. Others, with little to boast of—fail. It is quite simple. All this fatuous boasting of you doc-

tors about ethics and personality and individuality is just rubbish, and you know it."

The doctor looked at him in horror. "Is this all you think there is to life? Just a chemical formula with an electric expression?"

"That's all. Some day you doctors, instead of milling around until you are 30 years old studying bacteria and injuries, will merely learn chemistry and physics and you can begin to make money at 21 instead of 35. You are—if you will pardon me—just venerable old fools sacrificing your time, your talents, and your energies, to an ideal that is fast appearing even to you as a myth. You give away so much, too. That is a sign you are obsolete in your methods. You are an electric and chemical contrivance, my dear Sir, as am I, and you are 20 years behind because you will not admit it. You are in an economic mess and you can't see your way out. Half of your number are coming to their senses. I have seen to that. What I want to know is, when are the rest of you coming to my way of thinking?"

"Are you threatening me", asked Medicine.

"Now, you know I would never do that", replied Civilization. "I have too much affection for you. Too much admiration. You and I have gone hand in hand for years—hundreds of years. I am talking to you as a friend—a counseling friend. Don't you think I am sincere?"

"I am not sure whether I would catalogue it as sincerity. Maybe I should call it an electric sincerity—a chemical friendliness. Whatever that means. I am sure I don't know. But I guess I do give you the credit of believing you think I am failing to make the most of myself according to your standards." Medicine still regarded him dubiously.

"Look here now", said Civilization pleasantly, "you form the only crowd that sticks to this *individuality* business. It is doing you no good. Half of you are not making a living, and those that are never are sure of it. If I should decree to shut down half of my factories I could put you all on a starvation basis. You are absolutely dependent on me. You see that, don't you?"

"Yes, and then again No", said Medicine firmly, "now that I come to think of it I am before you, if you know what I mean. You speak of putting me on a starvation basis, why, I could let you die. I could let your batteries of which you boast, run out. Civilization, my friend, I control this thing called *health*. Nothing you can create can go on without it. I could let you die out. Cease to be. Vanish. Could I not?"

"Yes, you *could*, but you would not", exclaimed Civilization.

"Why do you believe I would not", asked Medicine.

"Because in all your life you have never been like that", replied Civilization.

"You count on my goodness then", asked Medicine.

"I call it fair play", said Civilization.

"And does that come too from an electric battery or a chemical formula within me", asked Medicine, calmly.

"Of course", replied Civilization.

"Then why do you not have more of it? Why should *physicians* have so much of it and you so little?" Medicine was beginning to be annoyed.

"There you go again on that *idealistic* stuff. That *brotherhood of man business*. I tell you it won't work." Civilization, too, was irritated.

"If it won't work, why is it that you have so much faith in the *fair play*, as you call it, of those who do believe in it; and I am persuaded not so much in any other calling than mine", Medicine asked.

"Oh, I do not want to be all day at this", replied Civilization angrily, "look down there—do you see all that world lying beneath us? Well, you can have it all in a comfortable way if you will just be like the rest of us and run your profession in a purely business-like manner. We will all work together. We need you, I'll admit, and we will pay you a good salary. But just for the sake of a perfectly working industrial machine, we want you to do as we tell you. You can have regular hours. A good competence. Freedom from the worry that has always marred your pleasures and social life. You have

something to sell. We will buy it. But, at a wholesale rate instead of the old retail method. I shall be frank. We want to monopolize and systematize Medicine. Everything else is under this scheme, and we simply have to include you. Then we will have all, and Civilization, which is I, will be complete. Capable of advancement—progression. *Big things*. All you give up is this millstone around your neck; *this individuality*. What do you say, Medicine? Are you coming in or not?"

And there we leave them. I wish I could record a refusal or an acceptance, as did Matthew, but it cannot yet be done. The colloquy still is on, I daresay, with Medicine somewhat stunned by Civilization's remark that "half the doctors are already in the grasp of Industry's direction".

These may be the words of one afflicted with pessimism. If so, he knows it not. To point out the fact, is a form of optimism if it be done in good faith and with an honest purpose. Whatever this writer is, matters little beside the belief that with all its milling around, its attempts this way and that, Medicine has not as yet given to Civilization anything like a definite answer to these two important and very vital questions. And will it? Or, will it just argue and drift and find itself after all just where it ought not to be? In the words of Matthew, a definite answer was given—and so it will have to be in this dialogue—and the belief that the best way to answer is to sit still and see where we are carried is both an example of lack of wisdom and a death of courage. To mix metaphors, we seem to feel we can eat our cake and have it. But who can blame Medicine for being slow to answer? For in the conglomerate mass of practitioners a veritable tower of Babel is presented as far as conduct, if not language, is concerned. Some are doing *this*, others *that*. Some are individualistic in the old manner, while others are submitting to servile directions under good pay in the modern mode. Some are alone, while others move en masse. Some cry out like Magda, "I am I", while others care not who they are so long as they live in comfort, ease and affluence. That you

can collect all these diverse elements together and have them sing a common hymn to a common cause would seem to this writer as asking much of circumstances—a great awakening in the medical profession. And yet it seems that is what we are making ourselves believe we are doing. Medical men gather everywhere in conventions and I am always lost in admiration of the serene performances accruing from such intermingling, but I have never yet been at any medical assemblage anywhere that straightforwardly and honestly plunged into the matter of answering with any degree of finality these two questions which Civilization continually presses on us to answer and settle. "Are we going to join in with the so-called smoothness of the Great Machine, which is another name for Industry", and, "Are we going to trade in our Individuality for what amounts to great Comfort and less Uncertainty?"

The American Medical Association will meet in Detroit this month. The average doctor will scan over its overwhelming program of scientific presentation with what amounts to an excess of pride. He runs no risk. The greatest medical organization is giving the mightiest outline of medical discovery and technical experience the world affords. Why should he not exult? It can well lull any man into complacency. It does. For, looking it over, you will find curative schemes for every bodily ailment; *but with characteristic self-effacement you will find little that even touches on the healing of the economic ills that affect this very Association itself*. It can heal others. Itself it cannot cure. If you attend this august gathering it will be rather difficult for you to arrive at an opinion that anything could possibly be not well, with such a magnificent display of the combined efforts of all of your fellow workers. The mere stupendous exhibition proves that behind it is a most intelligent body of humans, else it would not be there for you to witness. The thing speaks for itself. It is complete. Your superlative adjectives are called into play. And slowly there comes over you the conviction that all that was ever said or written about the ills of the medical profession were figments of

the brains of that kind of men who must cavil to live; misanthropes who are ever croaking a miasmatic effluvia of discontent. Surely such a crowning achievement is a Star Spangled Banner waving through the night of criticism to show you that The Profession of Medicine is still there as strongly as ever, and that the rockets' red glare you worried over was but a pyrotechnic carnival celebrating some new discovery—perhaps a cure for cancer. Who is it that says there is unrest in medicine? Who is it warns of absorption by unseen specters? Who is it says a thief in the night may come? All idle words! For here before you is a great spectacle and none but a supremely great organization could give such perfection. Throughout the year you have been elsewhere and other great gatherings inveigled you into similar soporific contentment. It is only in the state and county meetings you catch occasionally what apparently seems a rift in the cool serenity of the occupation. Life is like that. Do you recall how high our hopes for peace flowed a year or two before the Great World War? And have you not had a fine, ruddy-looking specimen of the race come into your office, and found him acutely infected with tuberculosis? It is an unkind comparison but it will hold even though it marks the man who gives it utterance as one who may have gall and wormwood in his soul. The bearer of ungrateful news is ever spat upon and Cleopatra, you will recall, killed the unlucky bearer of evil tidings. Therefore, if you or I should at an opportune moment gain the rotunda of those who speak and, mounting the platform, say, "Fellows of The American Medical Association, there is some report amongst us that while we gather here in some slight evidence of pride and achievement things are not altogether propitious at home", we would live, perhaps, to learn that we were somewhat ill-advised and would be greeted with a frown—so unkind is Fate, so altogether trusting the Medical Profession.

So, year after year we are lulled by these panoramas into a sense of well-being and a feeling that, after all, the chatter about a worm being at the core of our apple is somewhat idle talk. But in the small gatherings of medi-

cal men assembled in the course of the daily routine a different tale is told. Here, anxiety is in the air, fear a common article of faith, and an intuition that some of our most difficult experiences are yet to come, abounds. It has come to pass that medical men everywhere have sensed that in the past they were wont to neglect the side of their activities that pertained to economics and executive administration, and as one reviews the past he can easily see how it happened.

"Life terminating in Death at any time" is, after all, the biggest problem man faces. It would be a tragic enough world alone if we all came in with fixation to our lives and 3 score and 10 the stated time. It is true it would occasion considerable sorrow for each one of us to know that at 70 he must inexorably take his leave of mortal breath and prepare to visit the undiscovered country, but it would contribute in a great degree for order and accomplishment. Two big misapprehensions, Murder and Untimely Disease, would not be with us. Birth, that other vagary, would also be robbed of its bitter taste. Yet, with it all there still would be Poverty, Envy, Falsehood, and unfair Desire and we would perhaps, as now, be filled with discontent. This, however, is not the case. In every move we make we are followed about by the chances for exodus. There is not a situation we can formulate that cannot also include a quick demise. We never know at night whether we shall greet another day. We have grown accustomed to it through the years and each one comports himself as if he had hopes for a life forever upon this ball. But we all know better and the least adversity brings it, acutely, to our minds.

Now, it has been the business and challenge of the medical profession to minimize the chances for untimely death. Realizing the thread of life must come to the steady clipping of the shears some day, we aspire to make each mortal reach the stated 3 score years and 10 anyway, and we have pushed the average period of longevity up to 61, which is but 9 from the point of aspiration. To do this has been the chief occupation of physicians, and considering the constant vigilance entailed it

is no small wonder they have let pass the more selfish ambitions centering about themselves. It may be that the gambling sense in us all has contributed to the intense pre-occupation with which medical men have for centuries squared off at the signs of Death's approach, but, be it what it may, all the tarnish a more commercial age has placed upon us, to make us drop part of our chosen work, will not detract from the glory of much of what is clear-cut unselfishness. It may be a stark and bleak description, lacking in the softer and more dulcet notes, but what we do is to fight approaching death. It may be miles away, or it may be round the corner, but it is on its winged way. It is a fight, and if we ever lose the feeling that it is a fight we shall suffer attenuation. You cannot picture the fighting gladiators as thinking of their economic status while engaged in mortal combat. Their minds are on their shields and weapons and whether if they fall thumbs will go down or up. That was in other days. Today, thousands gather in a mighty arena and what purports to be a fistic carnival takes place. But the case is different in every way. "Economic status" is a great couplet now. The 2 men have probably wrangled over terms for weeks before they signed to engage each other. In many cases one of them is surreptitiously set to lose by arrangement. Many a fighter enters the ring with the one ambition to "go horizontal" at the first moment he can do so decently. Divers tricks abound. Shrewd practices. Ballyhooing is prevalent. Advertisement reeks in the newspapers. Seldom is any one knocked out. Fouls are claimed. Men work themselves into an artificial applause for the winner and then complain they have been gyped. It is labeled as a *fight*, but it is a *business*. Commerce and trade have eaten into its fabric as it has into baseball and is slowly doing to football and tennis. There is quite a good bit of information to be drawn from this adulteration of sport by trade and commerce. In an ideal world sport would be conducted for the mere conclusion of victory; the winner walking from the field with a wreath upon his brow might be enough as to satisfaction. It is not an ideal world and such a badge of prowess is, to say the least, an-

tique. Purses of \$100,000 are not so much, and a heavy-weight contender looks for no less than a million. Getting it, he retires and talks to Bernard Shaw, proving conclusively he had contempt for what he followed and did it as he would carry on any other business enterprise.

Art suffers likewise. Literature looks solely to its royalties. Drama must address millions or be a failure. Adventure is not adventure but a well laid program of thousands for preparation including all the comforts that were to be had at home. A Lindbergh catches the imagination, or what is left of it, by striking out alone across an uncharted sea; likewise, a girl flies to Australia. But most of them are, like Byrd, spending days and days making up the itinerary from a box of card indices and making every move like a mechanical doll, with proper details in the papers. Courage is existent but individual breath-taking exploitation is absent. It is done by rule of thumb. It is a far cry from pugilism to medicine. Bridging of a wide chasm to jump from sport to the saving of human life. To compare a blackened eye with the delicate movements of a small scalpel. A beefy moron with one who removes a cataract. But you cannot for a minute escape the conclusion evident wherever it is bared to view, that money by way of industry, trade, commerce and bartering, subtly, and at times rudely and roughly, changes the outlook, the inherent essence of what it controls, and when commerce comes into medicine as it has athletics it also will change and disintegrate it in the same way.

The air is filled with information that the old idea of filthy lucre is a supreme misnomer. That all that uplifts, all that comforts, all that really talks—is money. That the picture of power is not a stern looking pompous plutocrat but rather a kindly old man giving away dimes. I often think of the New York politicians who give the populace in their districts a picnic down the river once a year; it looks like such a splendid example of what is known as the big over-flowing heart; it costs comparatively little and can be regained from the profits of a single sewer contract.

The basic principle of every move in in-

dustry is gain. Gain is uppermost in all men's minds who follow its devious ways. Industry has gone on entertaining this notion at every point in its history, nor all your masqueradings for its modest appearance will move it one jot nor tittle to change its wolf-like greed for having everything its own way. Nearly every reform that has been forced out of it came from the outside, not inside. French industry killed hundreds in Panama, but "funds ran low" is what made them stop. Medicine stepped in to save the day. Guards are placed on machines everywhere because humanity, through Medicine, by way of Workman's Compensation Commissions, made it obvious this was a crying need. Child labor is giving up the ghost, but slowly. The present tragedy in Industry is seen in thousands of men who know but one trade being ruthlessly cast out into nowhere by machines. They would cast doctors out the same way. The number is being slowly augmented until it will reach the saturation point for gratuitous maintenance. Then we would begin to fear for the outcome. Industry seeks a big market for the machine turns out its products rapidly. Where will it come from with the army of the unemployed moving upward into startling figures? The machine is a two-edged sword; it may bring comfort but it also takes it away. The stock market—that great barometer of industry—so highly prized as a product of modern Civilization, is as heartless an instrument in its workings as any cruel evil-minded God could devise. It needs the principle of Preventive Medicine applied to it, but who will do it?

We are told Industry is changing rapidly. That it is now humanitarian. It has social workers. It has hospitals. It has medical service. But it had to be taught these were good for it and the cost of all these innovations is in all cases borne either by the employees or the consumers. Industry is only half-civilized. Only 2 agencies have ever been successful in bringing Industry to reform of its methods, however grudgingly they were accepted; the first was Religion, and by religion is meant all spiritual and philosophic contemplation; Medicine was the other. It has

been known for a long while that Industry has bent religion pretty much to its own way of thinking. There are sporadic evidences of independence. They are rather futile. Religion today requires vast sums for its maintenance. These do not come from the rank and file. They come from the rich and something must be given in return for their reception—and it usually is. Education might be supposed to enter into the matter but the endowments of almost all colleges come from great gifts, and while a liberal promulgation emanates every now and then from a seat of learning it is wasted as a rule on very thin air. Law is negligible. Industry numbers the legal fraternity among its strongest holdings and no one entertains any other notion than that the lawyers are completely submerged in the welter of monopolistic control. Lawyers, as some one has remarked, have ethics, traditions, and a wonderful collection of precedents, but no morals—and there the matter rests. The law rests on the bosom of Commerce and, being well fed from its ample breasts, sleeps on in abject contentment. Politics and Statecraft are scarcely worth a thought. The performances of any of our great deliberative bodies are pretty much a matter of probes and commissions, all aiming to expose the defects in our national life. Congress today deals with the destructive, not the constructive. It seems as if nothing in politics is clean, straight-forward, or wholesome. The probe is the national emblem, not an eagle capable of great flights. So, politics is not even contemplated here as an uplifting spectacle. Medicine, then, alone remains in the field as something that has not altogether yielded to the blandishments of Industry. *In fact most of the good in industry came from Medicine.*

What a man was Descartes, after all! We probably have never appreciated him in the least and yet his was a name to conjure with in his day. Mixture of the truly religious with a searching philosophy, he gazed from his minaret down on the human scene and with an all but God-like clairvoyance said: "If ever the human race is raised to its highest level intellectually, morally and physically, the science of medicine will perform that

service." You will notice he said—if ever—and it begins to look as if he foresaw that Civilization in the guise of Industry would take medicine up into the heights and tempt it with glowing promises; just as it is doing at this very day and hour. The altogether crucial problem, then, is this: Shall we call ourselves just a big cog on the wheel of life, turning with all the others in the course of each revolution it makes; to the end that people may exist in a standardized way, or, are we a separate wheel with laws of our own, *and a function that can never be correlated with any other*. It is here we divide. I have just left 2 young men engaged in healing the sick. They happen to represent both sides of the question. Each is capable in every respect, well educated and intelligent. One has followed his father in a good general practice, although he could at any time pose as a specialist in obstetrics. The other is a specialist in oral surgery. They are both independent in thought and action on nearly all extraneous matters. Yet, one is prepared to go slowly, enjoy his work as he does it, revels in the variety of what is presented, and is steadily piling up an endowment. To him medicine is a great adventure. The other says it is only the specialist who can live like others with hours he may call his own; that "group practice" is all he can see and that he believes it is only in such lines of work one can make the money adequately to repay for the long tedious hours of education. He believes in being in the center of things, acting with the crowd, and letting a lot of idealistic ideas go their way, since most young men, at least, have little faith in them. He regards medicine as a professional business. One of these men still believes the older virtues are existent and that he contributes a great deal to his surroundings by being as he is. He has the fire of individuality and the pride in being his own director. The other in an opportunist. Success, he feels, is in doing outstanding work for money. The more you classify and restrict the greater the fee, so that he can do 4 or 5 operations a day and make more than his brother—for they are brothers—will make in 20 separate calls,

hospital and otherwise, in the old manner. He cannot see why we are concerned with any side of the patient's life except to relieve him of what he asks the doctor to alleviate. As both of these men have had the same heritage, the same environment, the same opportunities surrounding youth and education, and the same father, the picture they present is illuminating.

Well, which of them is right? Or, are both of them correct and is there room for 2 such views in the general scene? The only difference I can see in these 2 young men is that placing them up in the air with Civilization to tempt them—one would refuse and the other accede. Both would be sincere and honest in their decisions. Each would believe he was doing the right thing, except that one would believe the older fundamental virtues and characteristics had not changed nor ever would, while the other would reason that new occasions teach new duties, and he would utter the old familiar saying, "We are in Rome; let us do as the Romans do and stop talking about it". To put it bluntly then, have we really an interest in humanity beyond just treating it for its illnesses and receiving pay for our labor? Descartes said *we had*, and it is a singular and striking thing that, of all the great forces in the universe, *we* should come at last to be virtually standing alone as an instrument for improvement and advancement of the mind. Do you believe in chosen groups, favored clans, preferred segments? If you do, the hand of Progress points unmistakably at Medicine. It cannot dodge nor circumvent the clear-cut injunction. Medical men separate on whether or not they are able to interpret this; and about every economic perplexity we have rests in some way upon the response. You either see or you do not. You either believe in it or you don't. If you neither see it nor believe it, I cannot see that it makes much difference how you practice; whether it is group, contract, referee, state general or specialized will reck but little, for you are engaged then in defining illness, marking its course, and attempting its cure or relief for money. You will attempt to do this where the greatest pay results. You

will go where you can do the best. You will expect and will get the same treatment and rules of advancement any other enterprise obtains. Failure will not depend so much on your dexterity as on your surroundings. The law of averages will hold you to its own. But if you do accept the challenge, and believe Medicine is more than medicine, and that in some peculiar way, not fully defined, you are the world's greatest hope in avenues outside of mere drugs, diet, and surgery, you will see to it that your individuality is preserved and you will even entertain some discomfort in its preservation. A good mind will ever have to hold some cause dear above all others, and the cause of independence has since man first saw light been the highest valued. The best motto is a picture of the Boston Tea Party.

The longer I live the more striking does the picture of the average doctor become to me. They say this is *idealistic*. What do they mean by that? Just this—that every foolish vision that has held out some improvement to the human race, above what the pragmatic minds of the day could grasp, was and is called *idealistic*. Some call Morris Fishbein an idealist. Almost all these *idealistic* visions have become the great *actualities* of the present. The statement that medical men, if they stood together, could control the future of the race is, therefore, dubbed visionary and idealistic. Well, it *could* be one of the actualities like all the others if we but effected a solidarity. For, solidarity is more than organization.

A single paper could be written on the various methods by which Medicine has influenced all other life about it. In the realms of Commerce itself—Industry, Literature, Drama, Religion, Philosophy, Statecraft, Education, Amusement, Athletics, Crime, Law, Order—all of them owe a lot of the good that is in them to the influence of medicine.

Of what practical value is all this inquiry into the separate views that appear to divide all Medicine? Is there a common ground to which we can hearken back again? Is there a solidarity? There is. It is based on the remarkable tie that binds us when one of us is harassed by the baseless suits of malprac-

tice that continually spring up unawares. The legal profession is prone to refer to this with a good deal of irony and a wealth of sarcasm, overlooking all the time the fact that it is well nigh useless to attempt to hire a lawyer to prosecute another for anything. Insomuch as Medicine is not an exact science, new and novel diseases making their appearances betimes, much that goes into repair of the human machine escapes our investigations. Performances by the reticulo-endothelial system, the other blood making tissues, and the elements that make up the vitamins, not to speak of some obscure diseases, make the process of repair just a little beyond our best methods of demonstration. What we receive we make the best of effort to evaluate, but we cannot as yet quite fathom it all. The prognosis of repair is therefore not always under our control, but the Public assumes it is. A fracture is to the man in the street just a broken bone. He expects it to heal and if it does not, then, of course, negligence is assumed as obstructing its progress. Sponges left and instruments forgotten, catch the fancy of those who are rather heedless of their conduct where a doctor is concerned. Death cannot always be averted even by the best of men. We are, therefore, constantly besieged by unworthy suits arising out of the most trivial circumstances. No one wants a doctor to be protected from the penalties for murder or for other misdemeanors. But when it comes to these unjust legal entanglements, conceived in connivance and baseless from every fair and righteous angle, we arise in protest in a mighty show of solidarity which is often sufficient to make for our cause a vindication. We practically win every time this proves that somewhere in the heart of every medical man is a deep rooted sympathy for the perplexities of his kind. If it can be appealed to in one case, it can be relied on in another. The only reason it does not make itself manifest in the present economic predicament is that it has never been approached with anything like the description of things as they actually exist. We doctors have been over-fond of patting each other on the back and treating our in-

dignities, in the way of lost prestige and control of our efforts, as just a series of slight irritations, when we should have been conferring together on a well planned line of defense. One-half of the general world may not know how the other half lives but it seems not even one-eighth of the medical profession has taken the trouble to find out about the other seven. The way back, therefore, is going to be accomplished by baring the actual facts to every one and then showing conclusively that a bruise to one part affects the whole body. But it is going to be rather difficult to persuade several contingents that we must all find a common aim and all give up something to attain it. For instance, the Contract Surgeon has an ample income in many instances. The men under him do not always fare so well. In the larger industries he has a hospital, about everything he wants in paraphernalia; oftentimes his residence is in the better part of town; he need only appear in the more important happenings; and he has much in common with the Sultan of Sulu. All the families in the city are more or less beholden to him and in one way or another he has not only a very large following but a paying one as well. He is administering medicine in the wholesale manner. Of course, he never knows what is going to happen to him nor what whim may cause his displacement. Like every other employee he is subject to supervision which comes from laymen, not from a medical source. Changes in ownership may be disastrous for him and there are many other features that may cause his removal, none of which have anything to do with his proficiency or skill. It is at best an uncertain calling, although most men I have known have held their positions for many years. That it would be better for him, and the profession at large as well, that he should step back into general practice again would be very difficult to explain to him and still harder to get him to do. And yet I know one place in Ohio where such a movement is on at this moment, to make contract practice revert back again into general.

The Medical Referee occupies the position of sitting as a sort of Supreme Court on the

work of those of his colleagues who still have the hardihood to engage in general practice, or outside of the Industrial fence, so to speak. It is somewhat of a new idea but probably ripe for general observance by more than are using it now. If it has been taken up by the American Medical Association or any other body of medical men it has escaped our notice. A corporation hires an outstanding man to act as referee on what happens to employees in the way of illness. An employee becomes ill, let us say, with tuberculosis. His regular physician sees him; makes a diagnosis; prescribes treatment; all this with skill and precision. Is that enough? No, it is not. The Company's Referee, or his assistants, must also see him and decide whether what you have done and what you are going to do meets with approval. We will say it does. He goes away and recuperates; is cured. He comes back for re-instatement. You say he is well. Is that enough? It is not. The Company's Referee must again go over him and decide whether you are correct. We will say they agree again, because they can and do altogether disagree at times, and the man returns to his job. What do you suppose he thinks of you, if he is at all intelligent? He has his doubts, of course, and ultimately those doubts may lead to a complete undermining of his confidence. Let us say he would have objected to any one besides you seeing him. Two penalties are ever present. The first is, sick benefits withheld; the second, loss of his position. Not a nice predicament these days. The Medical Referee says *his* position is justified in that the company has just as good a right to inspect its medical services as it does its purchase of a carload of copper wire. But what it really amounts to is a kind of serfdom. The employee was paying his own way and the giving of benefits was an inducement along with the salary for a skilled person to work in the employ of the corporation. Between this Referee activity and the well-known "company store" there is slight difference. When an employee goes to work with this company he is virtually signing away his right to depend on his own choice of a physician for final advice, and Judge Parker

failed to make the Supreme Court because of acquiescence in a decision involving the same sort of loss of rights.

The Specialist is a necessity up to a certain point of division; after that he becomes a burden. He is a brilliant asset up to the place where he is logical; after that he is a liability. No one man could engage in all the various requirements of medicine from a physical standpoint let alone that of the dexterity that goes with constant repetition of a particular technic. But there is danger in its being overdone. The necessary specialists should attend to seeing that this is not carried to ludicrous conclusions. The x-ray men are subdividing into a half dozen specialties. The ear, eye, nose and throat men the same. It cannot but end in confusion to all concerned. Stop, if you will, and picture some country doctor trying to make up his mind just where and how to direct his patient, if things keep on. First of all he will have to make up his mind which building he is to consider. For it won't be long until we will have specialized buildings. Then, after that, which one of the many specialists shall get his patient, for it seems his patient has 3 or 4 symptoms. Well, the question is which organ demands primary consideration. The strange thing in all this is that the more they group medicine together the more each organ is individualized so that some of these days the internal structure of a patient, so far as correlated action is concerned, is going to be overlooked altogether. The thyroid has its following. The tonsil another. Some stitch the stomach alone. Others astronomically view the constellations in the bladder. The bones support another contingent. The integument covers the overhead and more of some other devotee. The adrenal has jumped into the fierce white light lately. The heart is to be divided and one man, like some anemic girl at a cotton loom, purports to engage the electrocardiograph all day. The upshot of all of this is going to be one specialist who is supreme over all others. He will be a man who like Mr. Foster down stairs will give you the information where to go and how, in order to locate the kind of a man who fits in with the symptoms you think you com-

plain about. This cannot go on to such ridiculous lengths without a reaction. There will be a point where the people, sold as they are at present on the idea of specialized work, will step in and demand that the Medical Profession either clean house or go out of the business of healing the sick by such methods. The head of any banking house is he who knows all about every one of the departments. Monotony, and ultimately carelessness, is the specter that stands over every specialist in any calling, the world over, who settles down to doing one single act however complicated it may be and however dexterous his technic may make him. The man who swings a mallet on a steer's head, as a daily occupation, and the man who centers on a formula of relativity for the planets must each face going mad at the performance. They must flee at times to other tasks or wither in the ritual. Why should a doctor or a surgeon be an exception? Of course he is not. Versatility has its conquests no less than singleness of purpose. Furthermore, while specialism came in to give precision and finality it has not always done so and patients are traipsing from one specialist to another and from one group to another and one city to another, as they formerly tried the general men from door to door. This writer believes heartily in specialists. They are superior men in most every instance, although when they do stoop to folly there can be nothing to surpass them. They have served to round out and polish off medicine with a fine finish of brilliancy but they have not always stopped to consider the vulnerability some of their practices gave to all medicine—chief of which has been overdivision and a creeping sense of inflating superiority over the rank and file. To know one thing well is a slogan that has been somewhat overdone. Versatility has its weaknesses but in looking back over the last 30 years I cannot see that the older men who missed some of these refinements were as inadequate as they are often painted.

The Foundation or the Group is to be defined as an impressive gathering of medical men in an immense building worthy of General Motors which is calculated to give the

general practitioner a sense of inadequacy, and a feeling of comparative ineffectuality, ending with all in an inferiority complex. It is at once a message to the Public that the usefulness of any one man in a case of much seriousness has undergone complete decay. It proceeds on the theory that if your automobile has something wrong with it, the only way to rectify it is to go over the whole mechanism. If it is only a spark plug, of course you are somewhat unfortunate. It must be admitted that you are bound to discover what is wrong sooner or later. But often at what price? But it overlooks one thing and perhaps this is a weakness. The behavior of a crowd and the behavior of each individual of that crowd when alone is radically different. In fact, it may be such a transformation as to be almost unrecognizable. To take all the individuals of that crowd and evaluate their mannerisms and their errors and their so-called failings will still give you no idea of what the crowd will do as to lynching a fancied culprit or voting for Henry Ford for something. Separate confidential reports on each citizen spread out on a table, will still not give an idea of what all of these same citizens will do in a mob, in a panic, or bent on reforming something. Neither will individual reports from a number of specialists, added together and put to judicial decision by eminent men, give a clear picture of the diseased person as a whole unit as when seen by one examiner only. A Foundation's opinion in a far city always reminded me of the bearing down of Billy Sunday into a town. He could call the leading citizens all sorts of epithets. They seemed to relish it. He was going to leave town anyway and never did have to live on with the victims. However, a few hardy imitators occupying pulpits in the home town, calling the same citizens the same epithets, barely escaped tarring and feathering. For some reason or other it was not the same.

Preventive Medicine is another obstacle to solidarity. The good Health Officer is perhaps one of the finest types of men humanity affords. He must be at once a person of courage, discretion, diplomacy and intelligence. Preventive Medicine, however, is the offspring

of General Medicine. Not so long ago it was a child, sucking at its mother's breast. Its father was that altruistic part of Medicine which believes in giving away for the benefit of others a thing from which any other calling would make a fortune. But, Preventive Medicine has grown into a flaming young man now who says he will live his own life and go his own way. He calmly states to his parents that he has been carrying on a clandestine love affair with State Medicine and may marry her if his father does not quit scolding him. This announcement has come near to driving him from his home, and will if he keeps it up. The youngster is a fine youth, upstanding and reliant, but a bit of a snob and inclined to court a good thrashing which as yet he is not too old to receive. On occasion he has made sport of his father and forgets his mother's admonitions. His tendency to keep company with lay organizations of which his parents do not approve, is becoming unpleasantly frequent. He consorts with politicians at times and listens to them rather than his father. He has a good chance for becoming a prodigal and on his return, if it ever happens, from his excursion amongst the corn husks he will most certainly not be greeted with a killing of the fatted calf. This young man has a bright future but he can spoil it all if he is not careful.

Let us confess, then, that with all the supreme attainments we have made, we still lack something. It is as if we treated symptoms and not a known disease. Crackling at our every hand, swirling beneath us, shooting now here and there in serpentine potentiality, is this thing called *disease*. We handle its symptoms superbly. One after another comes up and amidst heart-breaking research and discovery we overcome and subjugate them all. But others rapidly take their places and while longevity slightly increases it cannot all be laid to the passing of the hazardous maladies. We shall not take our rightful place until we find the source from which all these branches spring. We shall not be the world power we some day are destined for until we reach the deep conclusion from which tuberculosis, can-

cer, measles and all the others propagate or arise as flecks of foam in a mad current of unbridled force that as yet knows not its master. Assuming that we have this underlying potentiality to deal with it, and hypothetically asserting that, with what we have known, we have, while scratching the surface so to speak, made a splendid job with the knowledge at hand, what interests us now is—what is the cause of the many problems that beset us in the Medical Scene immediately in front of us. There must be some basic reasons besides the mere coming of the machine, the admitted dominance of Industry, and the slightly patronizing attitude of the Public in general toward our administrations. I believe in the beginning we were a servile lot, afraid of our own voices, so to speak. I think the times demanded such an eye for the main chance as the price of self-preservation. However, the period arrived when this was not outwardly so much a matter of requirement. I shall always feel, as has been recorded before, that we still have an hereditary fear, in-born in us, of power and affluence. We still are like Mozart, Columbus, and all the other celebrities who had to fawn about royalty in order to obtain enough of the coin of the realm to carry on great adventures from which all humanity derived satisfaction. Our research laboratories, our seats of learning, our hospitals, the very moving picture films we most exhibit, come to us by donations from the rich, the opulent and some industry which in the end profits by it in some way. That this plays its part in our failure to be ourselves none can deny, but it is not large enough to account for it all. Some great basic, fundamental gesture lies behind our present predicament. Strange to say, against all altruistic sentiment as it appears to be, I shall make bold to say that it was our failure to evaluate our services in terms of worldly emoluments. We gave away, and giving away has never been, and is not now, understood. We sweep at once into the teachings of Confucius, the Koran, Budha, and the Gentle Nazarene, and on every page is echoed and re-echoed—"Give and ye shall receive." "Cast your bread on the waters and after many

days it will return a hundred fold." And after it has all been read it would indeed seem foolhardy to venture an opinion against all the sacred spirit of a Christmas Day. And yet, I can hardly think that any of it meant that any man, anywhere, was to give his means of livelihood away, in any sense of the word. Perhaps some such view betrays a misanthropic mind made bitter by an over-stay in searching out a reason, but in treading some 30 years the pathway of experience it has never occurred to me that anything had ever been gained by gratuitous bestowal of services. I am well aware that the profession has been sung in hymn and story for generations because of its benevolences and for its turning not away from whosoever asketh. I see in retrospect the stupendous array of free clinics, free hospitals, free social service centers and it almost seems as if I were but a child pointing at the moon, in having temerity to say it was superb but futile. For it does not take an erudite mind to perceive that throughout the whole history of these performances of charity on our part the other agencies of mankind, who assisted us in these endeavors, were in no sense having any similar views as to their own callings. Much of what they did was done in a spirit of squaring themselves with a world in which no one has long to live. Giving is in a sense a sort of penance to many a man who has come to realize he has obtained more than his share of the riches of his countrymen. So, to illustrate, we find a very wealthy man giving a free hospital to a community. The surrounding populace are in a heat of excitement while it is being built. Hand clapping is participated in to great excess on the day of its dedication. Perhaps it bears the great one's name. He is next to a saint in his locality. But it is all like the tariff—an indirect tax. A cent or two on the package of a common commodity, or the manipulation of his own stock for a single day on the stock exchange, could do it all. After all is said and done he has *given* nothing but he has *gained* everything *for anything he does in the future with prices of the necessity, or even luxury, he sells, will be condoned.* But the Medical Profession, which will donate

its services to his edifice, is actually giving its very self on very nebulous terms for an indefinite time and it will have no way, except it be through learning, to receive any benefits at all. Let us reverse this process. A number of medical men think they can add to their standing by an increase in the number of x-ray pictures taken. They pool the gross expense, build an x-ray emporium, fit it out with every convenience and comfort, and then announce they have asked a big film corporation, on the order of the Eastman Kodak Film Company, to effect a substantial reduction in their cost of films and promise to pass this along to the patient. You will notice I did not have the brazen quality to suggest that the firm might donate the films as we do our services. They merely *reduce* them. A big hue and cry would be raised. How could the company pay its normal dividend, build up its reserve or continue as a monopoly. It is quite unthinkable. Business is business. "We are not Russia as yet", they would reply. Yet, for years the medical profession has done that very thing and managed to give a very fair account of itself. Still they say medical men are in no sense business men. We have gone on for years like this being patted on the back by all the other divisions of mankind and part of the adulation heaped upon us has been genuine, but the most of it has been flattery, and we have learned to like it and every so often we expect it. But we could not expect to escape the penalties of it all and so a certain amount of patronization started along with it. This grew to where bestowal of a lot of our services was expected of us. Next we received no credit for doing it. Along with it all grew the disinclination to pay us until everybody got good and ready. This was succeeded by the idea, held by many, that with a little artfulness doctors need not be paid at all, because if you put up a bold front they would not insist on it since they were quite used to giving away a lot of what they did. The final step was when the Public began to insist on our giving away a lot, not through any moral right but because we were rather inclined to do what usage and confirmed pressure made us do. There is exactly where

we are today. Giving away millions of dollars worth of services and actually receiving no credit for the act. It is expected of us. We have built up a tradition that we are set to receive compensation for only about half we do and the present aim seems to be to reduce that to even less. I, for one, am not enthusiastic about sprinkling a paper full of old sayings but if ever that one of "familiarity breeding contempt" was applicable it is in this matter of the medical profession and its free services. The Public cannot be made to admit it, nevertheless it is quite evident they do not have other than a secret contempt for our giving away our work. Familiarity for years has taught them that this is not an ideal world and selfishness still has its way, so that this day-after-day exhibition of promiscuous giving by the medical men is either a weakness or a canny eye for advancement to the public. They have long since discovered we have no eye for our own aggrandizement. So, they very quickly perceive it as a weakness; and, *so it is*.

All these problems are but a few that corrode our solidarity. It is very evident to even the casual, that General Medicine, Industrial Medicine, Medicine by Groups and Foundations, Specialism, Preventive Medicine and "Give Away Our Services" all involve principles not in accord with General Medicine nor often times with each other. As has been said before, they involve the principle of States Rights. The springing up of medical organizations all over the country involves the same principle in regard to The American Medical Association. These separate conceptions of the way to practice medicine properly cloud the issue and eventually, according to even primitive laws, will end in disintegration of the central body—which in the question of State Rights is the Federal Government, in medicine, the American Medical Association. Diverse divorce laws are an example. Because of them, a divorced couple may re-marry and as the new quartette travels from coast to coast they may alternately in different states be legally married and bigamists. On the other hand, some state laws may be better than federal laws and all these

separate brands of carrying on medical practice may have points about them well worth incorporating into a new vision of professional activity. But a house divided cannot stand and all these various modes of carrying on have very seriously injured the main structure—no doubt of that. We cannot have complete solidarity as long as they exist.

The American Medical Association is, therefore, not powerful enough at its main foundation. This is absolutely no reflection on any previously elected or appointed men who now preside at 535 N. Dearborn Street. It is easy to see they do not have enough concentrated power for quick action and crystallized results. We have a loosely bound administrative code of action and it is in many cases all too useless simply because the forces of destiny that we oppose and battle are organized into the highest type of concentrated efficiency. The time is ripe for some great leader to step forward and catch the imagination of all these separate elements in our ranks and have them drop what is harmful in their proceedings and come together once more in a common view of the scene. It will have to be some man with a great name and undoubted sincerity who is willing to forsake all to gain all. He will have to put behind him all his favorite ambitions and sell his raiment for the cause. The day is past for commissions, committees, and the like. The end-result of all such bodies is a final sub-committee of 3 that 1 man dominates anyway. So, let us have that 1 man. Wherever he is, let him come forward. He will be the recipient of considerable persecution, and no end of calumny, because in American life today, with its iconoclastic biographies, a leader is supposed to be a man with the lowest possible aspirations, and George Washington, Abraham Lincoln, and several of the past presidents have been bespattered by the reviewers with several brands of mud. But, in the end he will be understood. In the final reckoning his will be immortality. Some way or other it seems as if we need a medical Mussolini who will be devoid of that gentleman's well known faults yet who will have all his forcefulness of character and his undoubted

flair for leadership. Then, if Civilization goes up into the high places with him and lays all the world out before him—he will say *no*—and *no* again, or, *get thee behind me Industry, for it is written that medicine is a thing apart, and none dare make it servile*. And that will end the matter.

QUO VADIS—OR TRENDS IN THE WORK OF THE MEDICAL PROFESSION*

L. B. McBRAYER, M.D.,
Southern Pines, N. C.

Mr. President and Gentlemen: I congratulate the great state of New Jersey upon the 3000 splendid physicians that she claims as among her citizens. I congratulate organized medicine and the people of this state on the able physicians who compose this society. I congratulate this Society upon the 21 component societies that join in creating the Medical Society of the State of New Jersey. It is, indeed, a great pleasure to be with you today.

It is a great pleasure for me to state, as I have done many times, that we are making more progress against the tide than any profession or any group, particularly during the last 25 or 30 years, and I take much pride in the fact that we have long since reached a point where our progress in medicine in North America is the admiration of the medical profession in all countries of the world, and they now come to learn of us. Even so, it is charged by laymen that in some respects we are drifting. For example, the laymen charge that we are not delivering to all the people who are ill, or potentially ill, or who think they are ill, the medical knowledge that is or should be the common heritage of every physician and should be used by him in the diagnosis, care and treatment of every patient that comes to him; and this fact, in my opinion, is very largely responsible for the attempt of

* (Address delivered at the 164th Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 12, 1930.)

the laity to dash wildly into the breach in an endeavor to remedy the situation.

Let me say here, and I do it after much deliberation and careful consideration, that in my opinion, there is a conspiracy on the part of some rich laymen, possibly aided and abetted by a few physicians, to discredit, to hold up to public scorn, to destroy the well earned prestige and the confidence of the people in, to humiliate, and no doubt, most important to them and the real desideratum, to subjugate, the medical profession. And what do they offer to our people? History repeats itself; a golden calf instead of the true and living God. I am not unmindful of the fact that they have associated with them, I refer to the Committee on the Cost of Medical Care, some medical men of good repute. This was necessary to give character to the undertaking. And I do not think I am betraying a confidence when I say that some of them were chary of the thing in its inception, for it was they who refused to serve unless they were permitted to make a minority report in case they could not agree with the majority, and their's should be published with the majority report. In answer to this, and to show the great magnanimity of the soul of the Committee, this demand was agreed to and was extended to cover all members.

But what about the conspiracy? The very name of the undertaking—"The Cost of Medical Care"—immediately and constantly suggests that the cost of medical care is too high and the blame attaches to the physician. Why not the cost of *illness* or the cost of *sickness*? This is so patent that in the brief report dated August 1929, they find it wise to explain in a footnote that the title includes also dentists, nurses and organizations, presumably hospitals, clinics, etc., though these are not mentioned by name. That footnote will in all probability not appear again, while the title will stand out boldly in every report and on everything with which the Committee is connected, every day and all the time.

Again, they have stated in the same report, "Until such time as the full facts may be made available, the Committee, it should be reiterated, will have no recommendations to

offer", and yet one of the donors, one of the rich laymen who has joined in putting up the \$170,000 spent by the Committee during the year 1929, comes out in the magazines and daily press, not only in the "New York Times" but in the state papers of your state and mine, and after many charges, true and otherwise, he says that what is needed to remedy all the evils of which the medical profession is guilty, is for the doctors to organize and advertise. Well, I am inclined to believe that half of the statement of the rich donor is true. This committee, of course, may say that it is not responsible for any action the rich laymen donors may take in the premises, but the earmarks in the article referred to coincide so closely with the views of some of the Committee, that it is apparent this propaganda against the medical profession—and it is nothing less—was prepared by members of this Committee or their employees; and if that were not enough, in their progress report above referred to, dated August 1929, on pages 21-23, they list 49 articles appearing on the general subject of the "Cost of Medical Care" in many different magazines and journals and boast that the material listed indicates the extent of public interest in these problems.

Gentlemen, the case of conspiracy is considered complete. This rich donor had some well-rounded phrases in the article that appeared over his name. I quote 2: "The low cost per visit is not the only attraction, but the assurance of careful diagnosis and competent care is equally as attractive and perhaps more so." And again: "Another phase of the cost of medical care to the patient of moderate means is beginning to receive attention. I refer to the distribution of his medical expenses. The hardship is not only that medical services are high, but that they hit the patient in a climax of costs at a time when he is not expecting them and has not had opportunity to prepare for them. Proposals of various forms of health insurance are being made to meet and lessen the effect of such terrific financial blows." I saw the plans for one such insurance scheme. It provided that the head of every household should pay the

sum of say 20 cents per week, which should guarantee to him and his family hospital care on a basis of ward rates for a limited period, say 12 days for each individual hospitalization. It provided further that the bank in which these funds were to be deposited should receive, say 10%, and the doctors should be *allowed* to attend these cases *without compensation*.

I know that one large insurance company is anxious at this time to issue a policy covering the entire cost of illness, plus the loss of wages, or salary. I have had correspondence with the vice-president of this company that is thinking most earnestly on this particular thing. I know that he has had conferences with the President and other officers of the American Medical Association. He thinks well of the medical profession, although he is willing to write insurance without examination up to a certain amount. At the same time, in this particular thing he knows that he is dependent upon the medical profession to a large extent. Not only has he great respect and a very high regard for the individual physician and for physicians as a group, but he is anxious now that the county medical societies, wherever this insurance might be written, should agree to take care of the treatment of these insured subjects. However, he does not know of any county medical society that is so organized as to be able to do it.

Now, what are we going to do about it? Are we going to do it, or shall we let a representative of that great insurance company come into the state of New Jersey and go into every county in the state and make an arrangement with a group to handle it?

That thing, among many others, is crowding upon us for solution. What are the doctors really doing?

Some statistician has stated that the doctors treat without charge one-eighth of the population of these United States, and that 3 to 5 million are ill every day. This means that the doctors treat 375,000 to 625,000 daily, without charge. At \$2 each, which is less than the Cornell Clinic or the Chicago Clinic gets by with, it would mean a daily contribu-

tion of \$1,250,000; or \$456,250,000 annually in the treatment of the people in the United States who are unable to pay anything. It would require \$10,000,000,000 invested at 5% to produce this amount contributed to charity by our profession, and then add to that an unestimated amount, but no doubt equal to the outright charity, given in reduced charges to those who are not able to pay minimum fees, and the total is doubled.

Let us take a city or county with 100,000 inhabitants, so that the figure may be in the mental grasp of those of us who are not so well accustomed to dealing in billions of dollars—Atlantic City, for example, though you have, no doubt, grown so rapidly in the last few days since the census enumerator was around that your population is much above that figure. Keep in mind that you have in Atlantic City about 150 physicians. The statisticians who have conducted studies in regard to illness estimate that 5% of the people are ill daily, and that would make 5000 people ill in Atlantic City, or in any city or county with a population of 100,000. Statisticians have estimated that one-eighth of all people ill are charity cases so far as medical treatment is concerned. That would make 625 charity cases in Atlantic City every day in the year. At \$2, which is less than any clinic has been able to get by with, that would mean \$1250 a day contributed by the 150 physicians of Atlantic City in service to charity patients, and would make in round numbers, \$500,000 annually. That means that \$10,000,000 would have to be invested at 5% to pay the doctors the minimum charge of \$2 per day per patient for the treatment of charity patients in this city. Now, add to this the patients that are not quite charity and can pay something but not regular fees, and you have at least as much more, which makes the doctors of this city contribute \$1,000,000 in the treatment of charity cases every year, and it would require \$20,000,000, invested at 5%, to bring in an income sufficient to pay this amount. These figures are probably under rather than over the exact figures, because Louis I. Dublin, statistician of the Metropolitan Life Insurance Company, estimates that

one-sixth of all medical cases are charity. And again, the Duke Endowment says in the last annual report, which is for 1928, that more than one-fourth of all cases treated are charity cases so far as the hospital goes, and more than another one-fourth are only part pay, so that more than 50%, to be exact 53%, of all admissions to the hospitals of North and South Carolina, in which the Duke Endowment coöperated, are charity or semi-charity patients. Maybe the doctors get some small amount of fees out of these semi-charity cases, but I was never able to. (Laughter.)

And pray tell me, why should 150 physicians in Atlantic City be called upon to contribute \$500,000 annually to the indigent sick in their city? No other group of citizens does so. It would never occur to any other group to do it. Visualize, if you can, the large number of cases of apoplexy that would occur among the members of the legal profession, for example, were it even suggested in the press of the city that lawyers should do likewise. (Laughter.) It would be my guess that the remainder of your population, totaling 99,850, does not contribute anything like the amount contributed by your physicians for the care of the indigent sick. Do you know of any reason why all the people of this fair city should not join in bearing this half million dollar burden now and heretofore borne by the 150 doctors? I do not. It is a community burden and the sooner the community recognizes and assumes it, the better it will be for all concerned. And then, the doctor will be able to reduce his part in the so-called high cost of medical care.

I am prepared to say that the medical profession is and are the greatest financiers the world has ever known, and likewise the greatest philanthropists. Why, the man or mail order house, or whoever or whatever establishes a foundation of \$20,000,000 or even \$100,000,000, whether to be spent in a given number of years or only the interest to be used, looks like a piker by the side of the medical profession!

Notwithstanding the great progress, the great accomplishments, of our profession and the mammoth contributions to charity just re-

ferred to, every word of which is true as life itself, the statement made in the beginning of this paper is also true, and we must remedy the situation. If we don't, our services will be kilowatt-houred or distributed through mail order houses to the sick under the *nom de plume* of philanthropy and the shibboleth of organization.

And what is the remedy? I believe that Dr. Harris, the President of our great American Medical Association, has suggested a remedy. President-Elect Dr. M. L. Harris addressed the House of Delegates of the American Medical Association at the Portland session last year when he assumed the office of President, as follows:

"One of the complaints frequently made against the profession is the lack of suitable provisions for the distribution of high class medical services to the mass of people at a cost within their means. This I hold to be an undisputed obligation of the profession, and I have proposed a plan which I believe will enable it to meet this obligation fully, and which will result in great benefit to the masses as well as to the profession. This plan consists in brief in each county medical society incorporating and forming a medical center with a headquarters properly equipped for the diagnosis and treatment of all varieties of ambulatory patients. The organization should be in a sense a pay clinic owned and controlled by the profession. Every person receiving services should pay. Those who are able to pay regular fees should have their own physician, as at present, while those not able to pay regular fees should be treated at the center and should be charged a fee depending on their economic status and the character of the services rendered. Those who are unable to pay anything are charges on the community, and should be paid for by the community, at rates to be agreed on by the community and the organization. The center should be managed by a board of directors, composed of physicians, which should arrange for the time and service that each is to devote to the work of the center. The income, which will be considerable, after paying the running expenses and upkeep, will go toward paying in

an equitable manner those who do the work."

Perhaps, most of you do not know that there is now a concerted action in certain places by which the Board of Managers, controlling things about which no one but physicians know, shall be constituted wholly of laymen. That is one of the schemes toward the controlling and the subjugating of the medical profession.

Organization. I do want to say that I consider the American Medical Association well organized for all the purposes required of it up to this time, and it is in position to extend its organization to meet any needs of the profession or the public, and heretofore has usually done so before the need became vocative, and I believe it is the duty of the Board of Trustees and Officers to formulate a plan, and without delay, that will make concrete the suggestions of President Harris, or some other workable plan, in our county societies through our state societies of course, and appropriations of necessary funds should be made available as needed for this work—for in my opinion this is the greatest challenge that has ever been made to the medical profession. If we accept it and win, as we will, we will be a militant profession for centuries and eons of time; if not, let me say again, our services will be kilowatt-houred or distributed through mail order houses to a desolate people.

Since preparing this paper I have seen the report of Dr. Olin West, our Secretary and General Manager of the American Medical Association, and he devotes considerable time and space to this subject. I also note that there is a resolution prepared creating a Council on Economics to be presented to the House of Delegates at a meeting in Detroit. That ought to be passed; and, I take it, will be passed. The high cost of medical care, so far as the physician is concerned, is a small part of the economics of the medical profession. It has many angles, and as was so ably said by the preceding speaker and essayist, we need to head that Council a man who has ability, honor, and knows a great deal about the economics of the medical profession from a great many angles, and who can learn anything that he needs to know that

he does not know. It also needs a man to head that Committee who is unafraid, and I know no man that fulfills those specifications as does Morris Fishbein and he ought to be placed at the head of that Committee or Council, and I hope he will be.

Another man ought to be on that Council, and that is a man who knows what an honest-to-goodness physician is. He has been one, he has come up from the general practitioner until now he is the able Secretary and General Manager of the American Medical Association. I refer to Dr. Olin West, whom I am sure you all know.

With those two men on the Council, it does not make any difference who the others are. (Laughter.)

The State Society. Our state societies are well organized for purposes scientific and for scientific sessions. You have quite a splendid demonstration of that today, tomorrow and the next day. But many of them, I would say most of them, are not well organized for such purposes as those referred to above, and they need the comforting presence, wise advice and able assistance of the American Medical Association. I want to say that in the average State Medical Society, as I know them, the machinery does not go into high gear quickly enough for this day and time. After the Society adjourns there is too little authority left for anybody to do anything until the next annual session. We in North Carolina, at our last session about a month ago, revised our Constitution and By-Laws, and we have corrected that defect. We have provided for an Executive Committee, and we have given that body *power to do things*. The Executive Committee is composed of officers of the Society in our state. The officers of the society include also the Council, and we have 10 councillors; and I can say to you and to the American Medical Association and to the House of Delegates of the American Medical Association, that if they constitute this proposed Council, and place on it men who have some knowledge of the thing that needs to be done, that within a week we will have a meeting of our Executive Committee in North Carolina and we will create a Council

for our State Medical Society to coöperate with the American Medical Association, and we will pass down recommendations and request that each County Medical Society appoint a small Council also, and at least the machinery will be ready to move, and can move at a moment's notice.

The County Society. It is well for us to remember, that by and large and particularly with reference to the solution of the problems that are under discussion at this time, organized medicine lives and moves and has its being in the county medical society, and organized medicine achieves or fails to achieve in the county medical society. I should say that in the counties containing the larger cities and towns, and in some of the counties containing medium sized towns, as measured by southern state standards, the county medical society is well organized for scientific sessions and scientific studies, but for other extraneous matters, such as we have under contemplation at the present time, even these have never attempted organization suitable therefor. While the small county societies, again measured by southern state standards, may be living, they show no signs of motion, and it would be wholly impossible for them to set up an organization as contemplated, if left to themselves.

Physicians, statesmen, needed. The individual Fellow of this Society and every medical society in this United States is so busy with study of the science and art of medicine, so busy acquiring the latest knowledge in regard to disease and its treatment, and distributing that knowledge and treatment to his individual patients, that he does not find time to give thought to the business, the economics if you will, of the profession, many times not even as it affects his own personal affairs. Naturally, such thoughts and such things seem sordid to him compared with the saving of human life. All honor to the physician, and the like of which there is none other, who can and does and will have an eye single to science and the extension and enlargement thereof, solely for the purpose of ameliorating the sickness and suffering incident to human life, the prevention of disease and postponement of the day of demise. There

is none like him, not one, save only the Great Physician, of whom he is the prototype.

When the Great Physician walked among men, healing the sick, giving sight to the blind, and the many other things that he did, He used the material things that were available. He had the man with leprosy go wash in the pool of Siloam; He had them take clay and spittle and place it on the eyes of the blind man, and his sight was restored; He took the 3 loaves and some little fishes and fed the multitude; He rode into Jerusalem on an ass; and yet methinks were He to come among us today He would ride into Jerusalem in an automobile, and come to Atlantic City in a sea-plane. And so our great profession must follow His example and use the material things as we find them in this day and this time.

As an example, we must not only use biologic products in the treatment and prevention of disease, but we must take cognizance of the psychology of the times in which we live, and adapt ourselves and our work thereto. However, we must remember and acknowledge the fact that there is no excuse, nor can there be any excuse, for our failure to make concrete for all the people of whatever status, financial or otherwise, all the scientific knowledge in regard to disease and its cure and prevention. And it seems to me that we need as never before statesmen-physicians in this State Society, in my State Society, in every State Society, in the American Medical Association and in many of the county medical societies, who will devote their time to the study of this problem and lead us out of this morass that threatens to engulf us.

My desire is that every unit of our organization and every member thereof should familiarize himself with the trend of things that affect in any way, either for good or for evil, the practice of medicine, and particularly the delivery of medical service of the very highest and best quality to all the people for whom he is responsible. And also to endeavor to impress anew upon your mind the wonderful accomplishments and continued possibilities of organized medicine, and the increasing importance of bringing into our or-

ganization, county, state and national, every legally qualified practitioner of medicine in our jurisdiction.

And may I express the hope that as the method of delivery of medical service to the people changes from time to time, in order to adapt itself to the changing times and conditions of our rapidly changing civilization, that the doctor may observe the need, and not only *point* the way, but *lead the way* in whatever changes may be needed, as he has always done since the history of medicine began, and may God have mercy on our people should it be otherwise!

INCREASING EFFICIENCY, REDUCING COST AND IMPROVING OUR PRO- FESSIONAL STATUS*

HENRY O. REIK, M.D.,
Atlantic City, N. J.

The burden of medical conversation today is more heavily weighted with economic than with scientific questions. Wherever two or more physicians are gathered together you are apt to hear talk of some economic problem; controversies over laboratory findings of different investigators and discussion of the relative therapeutic values of drugs or serums seem to have given way to talk of changing methods in the art of practice and to the threatened advent of "state medicine". For two years or more newspapers and lay magazines have been featuring articles that either criticize physicians in general, or complain bitterly of the character and cost of medical care. There have even been a number of books written upon these questions, the most recent (Spivak's "Medical Trust Unmasked") being by long odds the silliest of the group. Our own journals have during the past 5 years published hundreds of articles dealing with different phases of medical economics, and the profession is quite alive to the growing importance of some economic changes.

We are not among those who can be easily frightened by the bugaboo called "state medicine". We do not believe that every silly complaint or criticism requires an answer. We do believe, however, that honest critics and honest social workers, who have justifiable complaints and, especially, corrective propositions to offer, should be accorded respectful consideration. There has been a tremendous amount of thoughtless and unintelligent criticism and very little in the way of constructive suggestion, but one cannot escape the conclusion that the very mass of discussion must indicate some underlying cause worthy of study. In our medical journals, far more accurately than in the lay periodicals, we find indications of that character. Perhaps that is natural; certainly in our rôle of guardian of the public health it is the profession's duty to investigate this matter and to consider means for correcting any faults discovered.

The hue and cry of the moment relates mainly to the high cost of medical care, which might better have been labelled the high cost of illness—though we need not cavil overmuch about the name—and the question of efficiency versus waste in medical service. Illness has become an expensive proposition to the average citizen, but we doubt if the cause thereof rests mainly with the physician and surgeon; we believe that the main cause is to be found in the senselessly extravagant demands that naturally accompany the present American scale of living.

Without alarm over unreasonable complaints, or undue fear of threats concerning establishment of "state medicine", it does behoove us to consider such features of practice as we recognize to be the source of justifiable complaint against the profession. So, we have selected one of these questions to discuss tonight; i. e., the *economics of group practice*, and, while even that one topic cannot be covered in a single paper, we hope to offer something of a constructive nature. In our Journal of December last, we reproduced an excellent paper by Dr. Joseph Collins on group practice and we hope you have read and digested his carefully considered recommendations. The Journal of the American Medical Association

(*Read before the Hudson County Medical Society, Jersey City, May 6, 1930.)

has published several very good papers by Dr. M. L. Harris, the present President of the American Medical Association, upon group practice by county society hospitals, and Dr. L. B. McBrayer, Secretary of the North Carolina Medical Society, has delivered at least one address endorsing the recommendations of Dr. Harris. It is our intention tonight to follow their suggestions with a more definite plan of procedure, with a view to crystalizing thought upon the practicability of the idea.

As a basis, then, for this presentation we have constructed a proposition—can we increase efficiency in our service to the masses, can we aid in reducing the cost of such service, and can we coincidentally improve our own status in the public mind by serving even better than we are required to do? You will remember Oliver Wendell Holmes' advice to a young physician: "You must take the community just as it is, and make the best of it. You wish to obtain (in this instance, hold) its confidence; there is a short rule for doing this which you will find useful—*deserve it.*"

In an address to the Secretaries of Constituent State Medical Societies of the American Medical Association, on November 16, 1928, President-Elect Harris said: "We have given considerable thought to the economic question which is here involved. We have felt for a long time that it was an obligation of the medical profession to bring the highest class of medical service to all classes of people, to all the sick all the time, and until we are able to furnish this to all classes of people, all sick people all the time, we are not fulfilling the full obligation of the medical profession. * * * I think it is up to the medical profession to assume control of all questions relating to the medical sick. If we do not do it, we will be relieved of the obligation and it will be assumed by the lay people."

Later, in a paper entitled "The Economic Value of Medical Service" (A. M. A. Bulletin, June 1919), President Harris submitted the following proposal: "In order that the profession may fulfill its undisputed duty, it must organize on a business basis, the basis to consist in developing facilities for the production and distribution of high class medical

service to all the people. Every county society should organize for this purpose. The organization should establish a medical center *owned, controlled and managed by the society.* It should be properly equipped for handling all kinds of ambulatory cases. It should be incorporated so as to have legal standing, and the society should elect a board of directors to manage the business. Every member of the society, which should be made to include practically every reputable physician in the county, should pledge himself to devote of his time and skill to the work of the organization as may be equitably arranged by the board of directors. As the plan develops, arrangements should be made for the care of patients at their homes as well as for their hospitalization when necessary. This is not to be considered in any sense a free dispensary or clinic, as the services rendered are all to be paid for. The charge to be made will depend on the nature of the services and the means or economic status of the patient. The institution is to be in a sense a pay clinic but with this difference, it is to be owned and managed by the organized profession instead of by a small group combined for personal gain or by laymen. Nor is it to be supposed that all classes of persons are to be entitled to the advantages of the institution."

Dr. McBrayer, in his endorsement of the above scheme, concluded his paper (A. M. A. Bulletin, December 1929) with the statement: "my desire is that every unit of our organization and every member thereof should familiarize himself with the trend of things that affect in any way, either for good or for evil, the practice of medicine and particularly the delivery of medical service of the very highest and best quality to all the people for whom they are responsible. I wish to impress anew on your mind the wonderful accomplishments and continued possibilities of organized medicine, and the increasing importance of bringing into our organization, county, state and national, every legally qualified practitioner of medicine in our jurisdiction. And may I express the hope that as the method of delivery of medical service to the people changes from time to time, in order to adapt itself to the

changing times and conditions of our rapidly changing civilization, that the doctor may observe the need and not only point the way, but lead the way in whatever changes may be needed, as he has always done since the history of medicine began. And may God have mercy on our people should it be otherwise!"

The implied admission in these and other papers, that the profession is not rendering perfectly satisfactory service to the great middle-class of our citizens, and at a price commensurate with their needs and their ability to pay, together with the suggestion of having the county medical society enter into practice as an organized medical group, led us to dig up a plan that has been fermenting in our mental vat ever since the close of the World War. Our personal experience in both private and hospital practice, and our study of public service in medical matters, both preventive and curative, has convinced us that, at least, the medical profession is not today adequately fulfilling its own ideals in the line of efficiency nor is it meriting that degree of confidence and respect its members so ardently desire.

Let us then consider a practical application of what might be called 'generalized group practice' in community hospitals. Evolution in hospital care of the sick has been a steadily improving process during the past quarter of a century; so steady, in fact, that the close observer of daily happenings has probably been scarcely aware of the great progress made from year to year. Thirty years ago, the family physician experienced great difficulty in persuading any patient to enter a hospital for treatment; practically all medical attention was given in the patient's home, and nearly all surgical procedures were conducted in that home or in the office of the surgeon. How changed the conditions today, when neither the patient nor the surgeon would be willing to have anything more than the most minor sort of an operation performed in the home or office, and when with any medical condition that threatens to persist for more than a few days, the patient demands admission to a hospital where he can have the benefit of modern scientific apparatus and of skilful

nursing. Within the period of time mentioned, hospitals have improved marvelously in their scientific equipment, in their general provision for care and comfort of the sick, in their skilled personnel, in their attention to cleanliness—a microscopic cleanliness that can be attained rarely, if ever, in the private house—and in their development in the art of nursing. Small wonder that the sick man or woman to-day wishes to be taken post-haste to a hospital, the place where one can be most expeditiously and most certainly restored to health.

But, while this large demand for hospitalization is a striking fact, it will be far more important to realize that the demand upon hospitals would be greater still if those patients who belong to the so-called middle-class could afford to take hospital treatment. It is an admitted fact that our hospitals provide exceedingly well for 2 classes of patients—the rich and the very poor. Some provision is made for the intermediate class but literally thousands of patients whose ailments could be much better treated in the hospital than in the home, and who would be much more quickly restored to their proper places in the working world, are forced to put up with the greater risks and lesser opportunities of home care merely because they cannot afford the expense of hospitalization. These are people who do not need and do not want charity; they meet every other obligation in life but they cannot meet the burden imposed by sickness. Many members of this group of patients do enter hospitals, of course, and assume the expense of private rooms, private nursing, and surgical attention, but many of them are hampered for several years thereafter in liquidating the obligation thus assumed. Ignore for a moment the fact that many of these patients demand unnecessarily expensive accommodations and assume the cost of luxuries that have no proper place in their treatment, the question still remains whether we are providing adequate facilities at a reasonable rate for the mass of would-be applicants.

We are inclined to say that there is one feature of hospital management which, if properly developed, would result in immeasurable benefit to the community and the pro-

fession; that is the benefit to be derived from coöperative work on the part of the hospital staff. It is a sad commentary on the intelligence of the educated people of today, within and outside the ranks of the profession, that there is so little opportunity provided for making full use of available medical knowledge adaptable to the diagnosis and treatment of disease; that, except in a few institutions, like the Mayo Clinic, the process of securing a complete physical examination and skilled treatment is so cumbersome and so expensive that but few people can afford to have *proper* medical care. In "days of old" when the family doctor could carry in his head all of the existing medical lore, the sick man was as safe as he could then be, and was procuring the best available knowledge and skill for the treatment of his ills, when he entrusted himself to this worthy and dependable guide and mentor. But those days are gone forever, thank goodness! The light of scientific investigation has illumined many of the problems of those days and taught us how to prevent, as well as to cure, many of the diseases that were the scourge of those times. So great, however, has become the mass of accumulated knowledge and so highly developed is the technic of applying this knowledge, that there is scarcely a human being who can pretend to know all there is to be known about the science of medicine, and if there should be one such, it is extremely improbable that he would claim ability to employ every part of that knowledge. There are a few physicians today so well educated in every branch of medicine that they may be looked upon as masters of the science in so far as theory goes, and they are master diagnosticians, but these men make no pretense of being able to perform the surgical operations they think necessary to recommend, nor do they pretend to possession of that special skill called for in making all of the laboratory tests and Roentgen-ray pictures that may be essential to diagnosis. The practice of medicine has necessarily and very fortunately become very highly specialized. But, the sick man, the patient, has not become so specialized; he is still a union of all the various parts of the human body, and the disease which has attacked him may not have limited

its assault to one organ, or it may have manifested itself in such way that it is difficult to say which organ is most involved. The vast majority of illnesses do not call for treatment at the hands of specialists of the 14 different varieties; the well-trained, broadly educated family physician is still the proper person to care for most sick individuals, but it is a fact that all chronic affections and a very high percentage of acute illnesses require in the process of diagnosis or treatment the benefit of some part of that technical skill which the general practitioner cannot have personal command of, but which the trained specialist, whether a laboratory aide, roentgenologist, or special surgeon or internist, stands ready to supply.

What, then, is the greatest need of the hospital today, in order that the best possible service may be made available to the patient? *Co-operation*. In that one word, you may find the key to the whole situation. With a very few noteworthy exceptions, there is no co-operation today, worthy of the name, in even our best hospitals. Indeed, in most of them there is practically no provision for securing coöperation in a satisfactory manner. And that condition exists despite the fact that all of these specialists are clamoring for co-operation. A glance at medical literature is very instructive on this point. The surgeon proudly claims *ability* to cure 50% more of his patients if only the physician would get the patients to him in an earlier stage of the disease. The physician retaliates by saying that he would have *recognized* the true condition earlier if only he might have had the aid of the roentgenologist, the physiochemist and the psychologist. The roentgenologist disgustedly complains that his report upon a given case would have been more clear and of greater value to the surgeon if only he had been *taken into confidence* with the physician and the surgeon instead of being left to make a tentative diagnosis through interpretation of a radiograph and without any knowledge of the patient's clinical history. And thus it goes. As Mark Twain said about weather conditions, everybody complains and indulges in much talk, but nobody does anything.

Why do we not have this coöperation in

hospitals that are excellently well equipped, that are in possession of full diagnostic armamentarium, and that are staffed with a full complement of specialists? There are a number of reasons why, but it is doubtful if any of them are reasonable and justifiable excuses for continuing the present conditions. From the patient's point of view, the principal difficulty at present lies in his meeting the expense involved in obtaining coöperation among the specialists. Let us say that the disease condition is an obscure one and that it is deemed necessary, in an effort to arrive at a proper diagnosis, to consult an ophthalmologist, a neurologist, and a gynecologist, as well as to have a blood examination, urinalysis, and a set of x-ray pictures made, before reaching that stage where a surgeon may have to be called to perform an operation. Under the prevailing system, each of these consultations and examinations calls for payment of an extra fee. The patient looks upon this method of studying his condition as an expensive procedure, and he is not keen for coöperation at such a price. On the other hand, consideration of the expense that he may be forcing upon the victim, causes the sympathetic physician often to neglect some of these diagnostic aids and to attempt a short cut to determination of the cause and character of the ailment. He does this ostensibly in the patient's interest but very frequently it does not prove to be in the latter's best interests. Also, the time consumed in securing all of the desired examinations and consultations is a factor that interferes with proper use of the facilities of the institution and its staff, since most members of the staff are in attendance only a few hours each day. These are only a few of the reasons that might be discussed, but they are sufficient to show that coöperation cannot be expected until the system is reformed.

Has full and complete coöperation ever been tried in hospital work, and with what results? It has been tried and it has been amply demonstrated that the results of such coöperation are far more satisfactory than the best service obtainable from institutions working under the system now generally in

vogue. One of the most outstanding object lessons of the World War was that given by the medical department of the United States army. Never before in the history of medicine did physicians and surgeons render such highly satisfactory service to their patients. This can be said, too, in full recognition of the fact that there were many medical officers who were below the average in professional knowledge and skill. Unquestionably, there were in the army some medical men who were lacking in education and who were inadequately prepared for the tasks assigned them, but, speaking of the medical service as a whole, it can be said with assurance that the medical officers of the United States army rendered better service to the sick and wounded soldiers than ever they gave to their patients in civil life. How is this to be accounted for? The answer is simple. *First, because there was a practically perfect coördination of all the medical elements, and secondly, because there was no personal financial interest involved.* The patient could have as many examinations and consultations as might be thought necessary, since time and expense were not factors to be bothered with; and, the surgeon was not concerned about whether he would receive an operation fee and how much it might amount to. There was but one problem to be thought of; here is a sick man, or a wounded man, and I must get him back to duty in the shortest possible time. All effort could be directed to finding out exactly what ailed the individual, and what was required to restore him to health; singleness of purpose, obliteration of self-interest, and utilization of all available treatment facilities.

Our own experience in the army may help to make this point clear. Our first assignment, in the early winter of 1917, was to one of our southern camps where a base hospital had been established to care for the recruiting militia of an army division. As in all such camps, measles and scarlet fever soon appeared and both diseases showed considerable virulence in attacking the fresh material furnished by boys from country districts. As is well known, the complications of these diseases constitute their most serious feature, and

most of these base hospitals soon contained a number of boys with purulent affections of the ears, accompanied by the dangers of extension to the brain. There happened to be assigned to our base hospital about that time an ear specialist whose advanced age and professional standing entitled him to the attention of the Commanding Officer, himself an unusually keen and energetic physician, and upon being consulted about the consequences of these diseases, the specialist volunteered to prevent the more serious aural complications of measles and scarlet fever if he might have the sympathetic coöperation of the medical men in charge of the isolation wards. His request being granted, and the medical staff entering enthusiastically into the work with him, he immediately arranged for examination of the ears of every measles or scarlet fever suspect on admission, for the daily examination of the ears of those patients who might be too sick to make voluntary complaint of a slight earache, and provided for his own call to the wards to see any patient that presented evidence, no matter how slight, of an ear involvement. What was the result? While other camp base hospitals were reporting anywhere from 1 to 10 mastoid operations a day because of aural or intracranial complications arising from measles or scarlet fever, our particular hospital had but 10 such operations to perform during a period of 6 months; and this in spite of the fact that our camp had about the same number of measles and scarlet fever patients admitted as had any of the others. Furthermore, this coöperation resulted in the more noteworthy fact that not one single soldier left that hospital with a discharging ear due to either of these diseases; aural complications had either been prevented or cured by the time the patient was freed from his general symptoms. An excellent demonstration of the value of coöperation in dealing with a single group of affections.

In the early summer of 1918, we had the honor to be transferred to the American Expeditionary Forces and assigned to duty with a United States Base Hospital in France. Promotion brought us shortly into the position of Commanding Officer of that hospital, the per-

sonnel of which consisted of 35 medical officers, 100 nurses, and 200 corps boys. Our instrumental equipment was all that could be asked for. The hospital buildings were constructed on the same general principles as those used at the camps in the United States. We were located on farm land, 20 miles from the nearest town of any size, and in what many of us thought was the muddiest part of France. For the first few months our water supply was neither good nor sufficient. We were close enough to the battle-front to relieve the front-line hospitals and to receive many of the most serious cases immediately after their first dressings; getting our share, for instance, of the horribly wounded from the Argonne Forest. There was nothing unusual about the members of our medical staff; there were specialists of nearly every variety, but none who had attained to any special renown—no supermen. It was a body of medical men whose educational and professional attainments were equal to the average of such a number of physicians as might be brought together in any of our cities; as are, in fact, in front of me at this moment. It seemed to rain almost constantly that Winter and Spring, and mud pervaded everywhere, so that cleanliness was a thing difficult to maintain. And yet, out there in the fields, working under conditions that were very far from ideal, that staff took care of 7993 patients with a death list of only 80; almost exactly 1% mortality. Is there a hospital in any of our large cities that would not be proud of a record like that?

In the face of such demonstrations, and ours was not an isolated experience, we felt certain that on leaving army service we would see the knowledge and experience gained in the war applied to civil practice. Some of us were simple-minded enough to expect that hospitals would be promptly reorganized to the extent required for procuring this patently valuable coöperation among the members of their staffs, and we even believed that group practice would soon become the regular order in private work. It is now evident that we were expecting too much, expecting things to be revolutionized instead of working out

slowly by evolution. But, we still believe that the desired end must and will be attained.

Objection has been made that in such institutions there is apt to be a loss of personal touch between the patient and the physician. That is rank nonsense. What has personal touch got to do with a man whose appendix needs to come out? Some ailments of the nervous system may require this adaptation of personal attention but the vast majority of patients entering a hospital are more in need of the proper application of knowledge and skill than of friendship. Far be it from the speaker to advocate treating human beings as mere automatons, or of dealing with surgery as a purely mechanical problem, but neither would we place sentiment above science and art in the treatment of disease. There was no lack of personal touch, of sympathy, in the handling of our boys in the army, and there would certainly be none in civil life.

The public is beginning to understand the importance of maintaining personal health, instead of neglecting the body until a breakdown occurs. Witness the support given to the Life Extension Institute and to similar organizations that provide for periodic physical examinations. The sane business man has his factory machinery or his private automobile overhauled occasionally to make sure that all the parts are in good order and to avoid accidents that result from neglect of such ordinary precautions; he is coming also to recognize the necessity for having his own living machine inspected once or twice a year so that he may avoid the insidious onset of some destructive malady.

The public is also beginning to realize that proper diagnosis and treatment of disease is a complicated matter and that many, if not all, serious conditions require the coöperative efforts of several members of the profession, if the best results are to be attained. Witness the success of the Johns Hopkins Hospital, the Mayo Clinic, and a number of similar institutions where some surgeon has had the wisdom to organize a group of assistants into a "clinic".

HOSPITAL OF THE FUTURE

The hospital of tomorrow needs to be a scientific institution, run on business principles, guided by humane motives; it must be thoroughly well equipped for the investigation and treatment of disease; it must provide for perfect coöperation of all the elements entering into its service; and, its charges for service must be as low as is consistent with proper remuneration to those performing the work. Here is an excellent opportunity for a county medical society to render invaluable service to the public and to the medical profession.

The plan proposed by Dr. Harris is a workable one, and we advise its adoption and trial. There is no insurmountable difficulty about applying it in any county in this state. We feel absolutely certain that we could adapt the plan to even the smallest county society, with a membership of less than 20 physicians, and direct its successful working in the same manner as the army hospitals were conducted; the sole requisite to such success being a willingness on the part of the physicians to have it succeed.

In the smallest of our county societies there exists a potentially complete hospital staff, though it might require a year or more to fit individual physicians into their proper niches. Practicing as a coöperative group, correlating their respective talents and developing teamwork, those physicians would render better service to the community than they have ever given as practitioners on the individualistic basis. But, efficiency of service is not the sole gain. Application of ordinary business principles will assure reduction of cost to the purchaser of service and increase of profit to the selling organization. Economy of "overhead"—including both investment and running expenses—guarantees that; and let us say at once that there is no necessity for expensive hospital construction. We decry the present tendency to waist millions of dollars upon ornate buildings; but that is another story.

Why should any county society consider such a recommendation? We believe that several excellent reasons may be given.

(1) Our professional ideals require that we shall render the best possible service to the public; that we shall do everything in our power to abolish existing disease and prevent the advent of new disease conditions. We are forced to admit that we are not today perfectly fulfilling those ideals. We shall probably not attain perfection through the proposed plan but it offers a means of improving present conditions. Some of us, at least, believe that our general proficiency could thus be vastly improved.

(2) The plan properly applied would, like any other factory combination or business merger, greatly reduce the "cost of production", and, consequently, reduce cost to the "ultimate consumer". By similar comparisons it can be shown that the corporation will have an increased business, with larger and more certain profits, and consequent greater dividends to the stockholders.

Dr. William Allen Pusey, a revered Past-President of the American Medical Association, discussing this subject (A. M. A. Bulletin, February 1929) said: "I am quite at one with Dr. Harris in believing that either the medical profession has got to practice medicine coöperatively through intelligent, efficient business organizations, or the laymen are going to do it for us. Dr. Bevan brought to the House of Delegates last year a resolution * * * to the effect that physicians should try to see to it that medicine be not practiced by lay corporations. I think, if we are going to avoid that, we have got to furnish corporations that practice medicine but that we control."

(3) By assuming this new responsibility—in the rôle of guardian of the public health—and it may be argued that it is properly one of our responsibilities and obligations—the profession will advance far in public esteem. In our opinion it would go a long way toward preventing the much feared "state medicine". The socialistic doctrine of state medicine has much to commend itself to public favor; do not nurture any delusions on that score. If, then, for no better reason than self-preservation, is it not wise for the profession to give the public all that is *good* in

the proposed state medicine, if by so doing it can save the public and itself from the *evils* of state medicine? We think—yes! If we could say, as did Louis XIV: "L'état, c'est moi!"—all would be well. We would agree to accept state medicine if we might be denominated the state. We believe that the medical profession is and should be "the state" in the direction and control of medical affairs, but let us be careful to avoid that degree of arrogance that led the French king to say: "Après nous le deluge." We are being criticised—sometimes, but not always, unjustly. We are being threatened—generally without any modicum of reason or justice. We *have been* unreasonably slow in the application of modern medical science and modern business methods to the needs of the masses. Let us try to improve our professional efficiency, and to render better service to all of the sick and afflicted, everywhere and at all times, and at the lowest possible cost; because it is an obligation that belongs to us; because the public has the right to demand this of us; but, for a far better reason, because it is a special privilege in line with our highest ideals.

NEPHRITIS AND NEPHROSIS, WITH PARTICULAR REFERENCE TO PREVENTIVE TREATMENT*

DAVID RIESMAN, M. D., Ss.D.,

Professor of Clinical Medicine,
University of Pennsylvania,

Philadelphia.

In the 103 years that have elapsed since Richard Bright published his great work on diseases of the kidney considerable advance has been made in our understanding of the subject which he so greatly illuminated. But the advance cannot be compared with that in diabetes or in the infectious diseases. We are still in the dark as to the causes of the principal forms of nephritis, and such important manifestations as uremia are but dimly understood. The dietetic treatment of nephritis is

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in a most unsatisfactory state, and any one reading the modern text-books will be amused, though not edified, by the great diversity of opinions.

I have used as part of my title the words *nephritis* and *nephrosis*. Let us for a moment consider the significance of these terms. Some writers, particularly the Germans, use them in a strictly opposite sense—*nephritis* is inflammation, *nephrosis* degeneration. American authors to a large extent have adopted the German point of view, while British writers think that all kidney disease is "toxic", degeneration being always the first effect and reaction a later, but not inevitable, consequence, and that degeneration is itself an inflammatory phenomenon, whether followed by reaction or not. (Bennett: *Nephritis, Its Problems and Treatment*, London, 1929, page 31.) While the British view may be correct pathogenetically, from a clinical standpoint it is a distinct advantage to emphasize 2 different types of renal disease—one in which definite inflammatory phenomena predominate and one in which epithelial degeneration is the outstanding feature. When well-developed these types differ very strikingly in clinical course as well as anatomic features. Combinations, however, are common.

Although we may be able during life to draw clinical distinctions, we cannot with certainty predict the anatomic lesions found after death. Nor is it easy to reconstruct from postmortem findings the clinical picture present during life. Until we are able to do this we have not mastered the subject. There are a number of reasons for a dilemma the like of which does not obtain in some other diseases, such as cirrhosis of the liver or tabes dorsalis. The more important of these reasons are the following:

(1) The large factor of safety possessed by the kidney. A good part of the renal structure may be destroyed, in fact, 1 kidney may be removed, without noteworthy impairment of renal function.

(2) The urine may show albumin and tube casts and yet the postmortem examination may reveal nothing but passive congestion of the kidney.

(3) The urine may be nearly normal and yet uremia may occur and prove fatal.

The lesson to be drawn from these facts is that in order to understand diseases of the kidney we must approach the subject from the physiologic point of view, just as in the case of heart disease it is necessary to evaluate functional capacity. Perhaps some day we shall be able to express the capacity in a mathematical way, as 100%, 75%, 50% of normal.

It will make what I have to say about preventive treatment more understandable if as a preliminary I give a classification of the forms of Bright's disease. There are many such classifications. The one I shall give enjoys the greatest popularity at the present time. It presents several departures in terminology, though not in spirit, from the older which men of my generation were taught and which I myself taught until a few years ago. In no sense can it be looked upon as permanent; a more physiologic classification is sure to be devised before long.

Classification of diseases of the kidney comprised in the term Bright's disease.

(A) Glomerulonephritis.

(1) Focal—embolic, nonembolic.

(2) Diffuse. (a) Acute. (b) Subacute—Subchronic. (c) Chronic.

(3) Acute interstitial nephritis.

(B) Nephrosis.

(1) Acute—toxic.

(2) Kidney of pregnancy.

(3) Lipoid nephrosis.

(4) Tubular necrosis.

(C) Arteriosclerotic diseases of the kidney.

(1) Arteriolosclerosis without renal insufficiency; benign hypertension.

(2) Renal arteriosclerosis with renal insufficiency; malignant hypertension.

The majority of these diseases of the kidney are hematogenous in origin, i.e. the bacteria or virus or toxins are brought to the kidney by the blood. Metabolic substances, known and unknown, arising in the body, may likewise during their elimination by the kidney damage the renal structure. Various poisons, mineral

or organic, taken into the body by accident or design may on their way out of the system gravely impair the kidney. Damage may also result to the kidney by interference with the outflow of urine, by stone, stricture, enlarged prostate, or paralysis of the bladder. Not only is the kidney easily injured by such backward pressure but it also becomes more readily attacked by infectious agents traveling either up or down. I shall briefly describe the principal features of these various forms.

Glomerulonephritis. In the focal form, lesions in the kidney are irregularly distributed, affecting scattered glomeruli and in those affected sometimes only a capillary loop here and there. Focal glomerulonephritis is usually an accompaniment of subacute bacterial endocarditis. The kidney may show actual bacterial emboli containing the streptococcus viridans; at other times the scattered glomerular lesions show neither emboli nor bacteria.

Diffuse glomerulonephritis results, as a rule, from some focus of infection such as tonsillitis, or from acute infectious diseases—scarlet fever, erysipelas, etc. Longcope found focal infection as the probable cause of glomerulonephritis in 85% of all cases; in 15% no focus could be detected. While the condition bears all the earmarks of streptococcic origin—whether directly bacterial or whether toxic is a moot question—cultures of the blood and of the urine even in the acute cases are usually sterile. The striking feature of glomerulonephritis is the presence of blood in the urine. This is especially seen in children, as has recently been pointed out by Davison and Salinger (John Hopkins Hospital Bulletin, 1928, 42: 16). In uncomplicated cases there is no edema. If the disease is of long standing, the blood pressure is elevated and there is also retention of non-protein nitrogen in the blood, as well as a diminution in renal function shown by a lessening in the output of dyes and in a weakening of the power of the kidney to concentrate the urine.

In children, mild forms of glomerulonephritis may be readily overlooked because the symptoms in the beginning are not in the least "renal". (C. F. Long, International Clinics, 1928, Vol. 4, p. 193.) The child usually has

a sallow complexion, poor appetite and tires easily. Only examination of the urine will reveal the real cause. Discovery of urinary changes should lead to a search for focal infection.

Acute interstitial nephritis is characterized by cell infiltration in the stroma between tubules and about the glomeruli. The chief causes are scarlet fever, small-pox and streptococcic infections in general. Clinically, there is no edema, no nitrogen retention, no functional changes, as a rule. The urine resembles that of acute glomerulonephritis but usually contains many leukocytes and numbers of bacteria. A subvariety of considerable clinical interest is the so-called unilateral hematogenous nephritis (Brewer, Riesman and Mueller). This affects one kidney predominantly or exclusively. Clinically it may resemble pyelitis; when on the right side it may be mistaken for appendicitis. The removed kidney usually shows multiple small cortical abscesses.

Chronic nephrosis, chronic tubular nephritis. This condition, which corresponds to some extent to what was formerly called chronic parenchymatous nephritis, is of insidious onset, of chronic course, and is most common in young people. Its etiology is virtually unknown, although sometimes it follows the kidney of pregnancy and occasionally is related to syphilis. It appears to be essentially a metabolic fault. While it may occur in pure form, it is often combined with glomerulonephritis or with amyloid disease. In typical cases the kidney is large, smooth, grayish-yellow, soft, the capsule stripping easily. Microscopically, one finds various types of degeneration present, especially fatty, and the presence of doubly refractive granules, so-called lipoid bodies, which were first described by Munk (Ztschr. f. klin. Med. 1913, 78:1; Med. Klin., 1916, 12: 1019; Virchow's Arch. f. path. Anat., 1919, 226:81). In later stages glomerular changes are often added to the picture.

The patient, usually young in years, is pale and exhibits a variable amount of edema. Epstein has shown that the basal metabolic rate is definitely lowered; uremia does not occur and there are no changes in the eye-

grounds. The blood is hydremic and reveals certain striking changes in composition; the total protein is reduced from 7 and 8% to 4 and 5%, the reduction affecting the albumin fraction more than the globulin. The cholesterol is increased, and there is no nitrogen retention.

The urine is somewhat reduced in amount and contains large quantities of albumin, few tube casts, leukocytes and epithelial cells, rarely a few red blood cells; lipoid granules are found on the cells and upon casts or free in the sediment.

Arteriosclerotic nephritis. The outstanding feature is disease of the arterioles. The kidney is small and contracted and closely resembles the kidney of chronic glomerulonephritis. In the latter the glomerular changes are, however, more marked and the arterioles show merely a little thickening; their involvement is moderate and no doubt secondary to disease of the glomeruli. Two principal types of arteriosclerotic disease of the kidney are recognizable clinically and pathologically.

(1) Renal arteriolosclerosis, also known as primary contracted kidney, primary interstitial nephritis, or benign hypertension. The kidney is usually smaller than normal, with adherent capsule; cysts are occasionally present. Microscopically, the glomeruli show atrophy and hyalinization, the tubules are also atrophic and the arterioles thickened and hyalinized.

The etiology of this disease, which is more common in women than in men, is quite unknown. Some consider hypertension the primary thing and do not attribute it to a renal factor. I, myself, adhere to that view. I have never been able to convince myself that essential hypertension, so-called, was primarily a renal disease. At any rate, so far as the urine and the blood chemistry are concerned, there is little evidence to justify such an opinion. The urine may be increased, especially the night urine; the specific gravity may be a little lower than normal; albumin is present only in traces. There is no hematuria, no edema, no nitrogen retention, no ocular changes. Death is not due to the renal disease, as a rule, but to some cardiovascular

catapostrophe such as angina pectoris or apoplexy, or to cardiac decompensation or to an intercurrent disease.

(2) The second type of arteriolonephritis, malignant hypertension, occurs in younger persons than the benign type. Its etiology is likewise unknown but heredity seems to be a factor, and also possibly focal infection. On naked eye examination, the kidney is much like that of chronic glomerulonephritis. On microscopic examination, the striking feature is an endarteriolitis and peri-arteriolitis with advanced degeneration or even necrosis of the vessel walls. In this type the heart is enormously hypertrophied, the blood pressure exceedingly high. There is marked anemia, a tendency to hemorrhagic diathesis and to pericarditis. Edema, if present, is cardiac not renal in origin. The patient's color is more or less characteristic; it has been compared to that of a cold buckwheat cake. Death usually occurs from exhaustion or cardiac failure, from uremia or a terminal pericarditis. The urine, the blood chemistry and the renal function tests are similar to those of chronic glomerulonephritis.

TREATMENT OF NEPHRITIS

In growing children, in whom the tissues are labile, a mild infection is sufficient to damage the kidney just as an apparently trivial attack of rheumatic fever or chorea may permanently cripple the heart. This fact must always be borne in mind and the urine of children examined during any infection, even a slight cold or a tonsillitis. Albumin will often be found; it must not be taken as a proof of nephritis but it should lead to watchfulness. In the so-called streptococcic diseases to which scarlet fever may belong, the tendency to renal involvement is much greater. Therefore, our duty to take adequate protective measures is enhanced. Such measures are:

- (1) Frequent examinations of the urine.
- (2) Protection of the body against chilling, especially in the later stages of the disease.
- (3) Keeping the bowels open with mild laxatives, such as milk of magnesia.
- (4) Use of a bland diet consisting of milk,

fruit juices, cereals, custards, junket, water ices.

It is not necessary to put the patient on an exclusive milk diet, as has been advocated by some writers. A little meat once a day may be allowed after fever has subsided. That this is justified is shown by investigations of Pospischill and Weiss (Ueber Scharlach, Berlin, 1911, quoted by Fishberg, Hypertension and Nephritis, Philadelphia, 1930), who fed one-half of 2773 scarlet fever patients with a milk diet while the other half received the usual meat ration. While the incidence of glomerulonephritis was almost the same in both groups, the general physical state of the children who received the meat was far better. Identical results were obtained by Jochmann (Loc. cit.) in 1000 scarlet fever patients. Extreme dietary restriction, therefore, is not a prophylactic of postscarlatinal glomerulonephritis, and the same probably applies to glomerulonephritis following other infections.

(5) Alkalies. There is a wide-spread belief that alkalization is useful, and liquor potassii citratis, citrocarbonate or the alkaline mineral waters may be employed.

(6) The Dick test with subsequent immunization of those found susceptible may do much to lessen the incidence of scarlet fever and consequently that of nephritis.

What I have said of scarlet fever applies in large measure to follicular tonsillitis, which is a definitely infectious disease due either to the streptococcus or the pneumococcus or to some unknown organism. Even a mild attack may set up an acute glomerulonephritis with albumin, blood and casts in the urine. This fact, as well as the relation of the tonsil to rheumatic fever and to endocarditis, has convinced me that tonsillitis should be taken more seriously. Many practitioners make too light of it. The patient should be put to bed and the urine frequently examined just as in the case of scarlet fever. Removal of diseased tonsils and adenoids is a preventive measure. Though often disappointing such results do not necessarily impugn the wisdom of the operation; the damage may have gone too far to be remedied.

I have said that colds may produce in chil-

dren, at least, some albuminuria. I have also referred to the relation of sinus infection to the nephroses to which a number of writers have called attention (Aldrich, Amer. Jour. Diseases of Children, 1926, 32: 163); Marriott (Med. Clin. North America, 1924, 7: 1413); Clausen (Amer. J. Diseases of Children, 1925, 29: 582). We know very little about the etiology of these infections, this ignorance constituting a distinct opprobrium to the medical profession. Unless the Baltimore investigators are wrong in their claim, they have discovered the cause of colds. I believe it would be a fine example of preventive medicine if we devoted half as much money as is given to cancer control to the study of the common cold. Until we can prevent this troublesome disturber of childhood we must take precautions similar to those I have outlined to guard against renal complications.

Kidney of pregnancy. The great danger to the pregnant woman is eclampsia, which occurs in 18% of primiparae and in 4% of multiparae with kidney of pregnancy. While, as a rule, the eclamptic attack is preceded by well-marked symptoms of toxemia—headache, visual disturbances, epigastric pain, albuminuria, hypertension, edema of ankles—at times the convulsions set in without any warning. Hence, preventive treatment demands that every pregnant woman be properly watched, that the urine be examined, that the blood pressure be taken at regular intervals. A rise in blood pressure is an ominous sign. Preventive treatment expresses itself in attention to the bowels, rest in bed, restriction of salt and fluid intake, and a low caloric diet. Protein restriction is not so essential since renal function is normal, although it is desirable to omit the heavier meats. Since Fay and Winkelman have shown the value of fluid restriction in epilepsy, it would seem logical to employ the same method in eclampsia.

With regard to the induction of abortion as a means of preventing or combating convulsions, the obstetricians are not of one mind. The prevailing tendency, however, is toward conservative treatment. Women who have suffered from kidney of pregnancy should

familiarize themselves with birth control measures.

When we come to consider the treatment of chronic glomerulonephritis certain general principles are important.

(1) The disease, whatever its form, usually starts insidiously; only rarely is it possible to obtain a history of an acute attack. This fact naturally limits greatly our opportunity to apply preventive measures.

(2) Sometimes a latent focal infection constitutes the probable cause of a nephritis or is the agent that aggravates it. Hence it is a definite measure of prevention to remove foci of infection—disease of the sinuses, bad tonsils, abscessed teeth. This should, however, always be done under theegis of common sense.

(3) There appears to be an hereditary tendency to the arteriosclerotic form of nephritis. In families in which such heredity exists, it may be possible by careful watching over the children—examination of the urine, determination of the blood pressure, and search for foci of infection—to do something toward protecting them from the familial taint. This is a general principle that cannot be over-emphasized. We are beginning to realize, through the work of a number of German writers and through Draper and others in this country, that there is a great deal in constitution, in the inherited photoplasm. While few diseases are directly transmitted from parent to offspring, the tendency to many is transmitted. It is the responsibility, indeed the privilege, of the family physician to ferret out these familial tendencies and to shape the lives of the younger generation accordingly.

Although a cure of chronic nephritis is rarely possible—it does occur—much can be done by proper management to prolong life and to make it comfortable. Among the measures that postpone the inevitable are:

(1) As already mentioned, the judicious removal of foci of infection.

(2) The patient's life must be reshaped in keeping with his limitations; his general activity should be restricted to a level commensurate with the state of the renal function and of the circulation. Every patient, in this

respect, is a law unto himself. But for all alike a placid life free from mental and physical overstrain is desirable.

(3) By proper clothing—woolen, merino or silk underwear—and by avoiding wet feet and chilling of any sort, the patient guards against acute colds, the development of which is always accompanied by an intensification of the kidney trouble.

(4) Climate is an important element. If within the patient's power, removal to a dry equable climate during the winter months is a wise step of prevention. The Southwest, Arizona, Southern California, the French Riviera, and Egypt constitute desirable places.

Diet. A change is coming over our practice regarding diet in nephritis, although, as I indicated in the beginning, our practice is not yet on a truly scientific basis. Two opposing views are still unreconciled; the old one, supported somewhat by the work of Newburgh and his school, that animal protein is harmful; and the new, of which Epstein is the chief exponent, especially in regard to the nephroses, that animal protein is not harmful. The latter school believes to find corroboration of its views in the experience of Stefansson and his colleague who lived for a year on a meat diet without showing the slightest damage to the kidneys or any rise in blood pressure or of nonprotein nitrogen in the blood. I believe we may safely give a moderate amount of animal protein in chronic Bright's disease, using as our guide the blood urea-nitrogen rather than the blood pressure. If the retention is moderate, we may allow protein in the form of meat—red or white—up to 1 gm. per kilo of body weight. When the nitrogen retention is high, then it is desirable to make the protein intake low; using milk, cereals, fruit juices, apple sauce, and water ice. Condiments should be forbidden, and alcohol except in great moderation.

Fluids. It is traditional to give patients with Bright's disease large amounts of water "to wash out the kidneys". This practice overlooks an important physiologic fact, namely, that the elimination of water is a definite tax upon the kidney. On the whole, flooding the system with fluid is unwise; that

obviously applies to the edematous cases, but also to the hypertensive "dry" cases.

A word about salt restriction, which has been much agitated since Allen espoused it as a treatment of hypertension. Allen has apparently gotten results that a number of other clinicians have not been able to confirm. However, it is possible that the doubters, and I among them, have not always carried the restriction to the extreme degree recommended by Allen.

Drugs. If the blood pressure is high enough to cause symptoms such as vertigo, headache, tinnitus, etc., it may be necessary to use the nitrites—nitroglycerin or erythrol tetranitrate—or to bleed the patient from the arm in order to ward off a cerebral catastrophe. The headache is often relieved by chloral 0.5 to 1 gm. at night.

Chronic nephrosis: lipoid nephrosis. As already mentioned, this is a metabolic disease of obscure etiology. When syphilitic infection is demonstrable, arsphenamin, bismuth and the iodides may be used. Mercury is best excluded from the treatment. On account of the copious albuminuria involving a considerable loss of blood-protein, Epstein and others have recommended use of a high protein diet. Such a diet has given very satisfactory results. It contains from 120 to 240 gm. protein, 20 to 40 gm. fat, which is a great reduction from the normal, and from 150 to 300 gm. carbohydrate. Among the foods allowed are lean veal, lean ham, white of egg, oysters, fish, gelatine, lima beans, lentils, green peas, split peas, mushrooms, rice, oatmeal, skimmed milk, coffee, tea and cocoa. A reduction in both salt and water intake is necessary. Salt should be limited to from 1 to 3 gm. per day and water to 1200 c.c. As the basal metabolic rate is usually lowered, thyroid extract is indicated; is well borne even in large doses. Service (Amer. Jour. Med. Sciences, May 1930) points out that the presence of edema may be a factor in the lowering of the basal metabolic rate.

If the edema proves rebellious, diuretics may be used in addition to other treatment. There are many diuretic drugs on the market; those that give the best results are the theo-

bromin group, ammonium chloride, calcium chloride or calcium lactate from 6 to 12 gm. a day, and the mercury group among which salyrgan and novasurol have the greatest vogue. Caution is necessary in use of the mercurials; presence of hematuria is a contra-indication. Sometimes the edema does not yield until the abdomen or the chest has been aspirated and the fluid removed. When drugs, salt and water restriction fail, scarification of the legs may succeed in removing the fluid. When it is possible to demonstrate a cardiac factor in the edema, digitalis is indicated.

As the nephroses, as well as chronic glomerulonephritis, are often attended by severe anemia, transfusion has a place in the treatment. I am in the habit of giving a moderate transfusion when the hemoglobin reaches 50%. Iron has been used in the treatment of anemia but I have not seen much benefit from it. Nor has liver extract given good results in the anemia of Bright's disease.

One word more: The multitudinous studies on diseases of the kidney point more and more to the conclusion that Bright's disease—using the word in its most comprehensive sense—is not a purely local or renal process but is a widespread systemic disease, affecting other organs and tissues as well. Among the other organs and tissues the liver and the heart stand out prominently. Such an assumption will help to explain some of the forms of edema and uremia and will give us clues to better curative and preventive treatment.

RHEUMATIC FEVER IN CHILDREN

STANLEY NICHOLS, M.D.,
Asbury Park, N. J.

Our objects in presenting this paper are, first, to consider briefly the salient points and outstanding questions as to the nature, etiology, course, and private and institutional care of rheumatic fever in children, that have occurred to us in working continuously for the past 10 years in a children's cardiac clinic; secondly, what we, as the Pediatric Section of this Medical Society, can do in an organ-

ized way to promote a better understanding and care of this disease, which not only stands among the leading causes of child mortality between ages of 5 and 14, but also ranks exceedingly high in the number of children crippled for long periods of time. In this short paper no attempt can be made to cover the entire subject, which would fill several volumes, but it is hoped that this discussion will stimulate greater interest in some of the excellent reports and findings of such groups as the International Committee on Rheumatism; the Committee on Rheumatic Heart Disease in Children, of the British Medical Association; the research division of the Rockefeller Institute headed by Swift and his associates; the research departments of many medical schools in Europe and America; and the steady flow of excellent articles on rheumatic fever from many workers in the children's cardiac clinics in the United States.

DEFINITION, NATURE, AND FORMS IN CHILDREN:

Rheumatic fever, better called rheumatic infection (because at so many stages of it there is no fever), is now regarded as a chronic, widespread infection affecting many organs of the body, probably transmitted through the blood stream. It is subject to quiescent periods, alternating with many acute and subacute exacerbations which were formerly regarded as separate diseases. To these manifestations are now given names, depending upon what organs are involved; if the joints, rheumatic polyarthritis; the heart, rheumatic carditis; the central nervous system, rheumatic chorea.

Small has stated that perhaps we will find that any part of the body that has a blood vessel can be subject to rheumatic infection, as in syphilis or tuberculosis, and in view of the constantly lengthening list of rheumatic manifestations this appears possible. To the original rheumatic triad of polyarthritis, carditis and chorea have been added rheumatic pleurisy, rheumatic tonsillitis, rheumatic nephritis, and rheumatic changes in the blood vessel walls in the intestinal tract and other parts of the body. Coombs states that in the

first decade of the disease (which covers the entire period of childhood) the lesions are inflammatory in nature, and in the second decade and thereafter the lesions become degenerative. This inflammatory element should always be borne in mind when considering various forms in children, particularly rheumatic carditis.

ANALOGY TO TUBERCULOSIS

The resemblance of rheumatic infection to tuberculous infection is so striking that a table of their similarities is here appended as being a very good way to keep its nature and course in mind. (See next page.)

ETIOLOGY

Predisposing causes. Many studies of rheumatic infection have shown some predisposing factors. The disease is largely a disease of temperate climates, diminishing in frequency as the equator is approached. In this country the highest incidence of the disease is found in the late winter and early spring months and the peak of age incidence comes around 8-9 years, being rare before the age of 3. Multiple infections in the same family are so common as to raise the question whether there exists in some families a constitutional predisposition or a direct transmission of the disease. Rheumatic infection is more common among children who attend hospital clinics than in the comparatively well-to-do seen in private practice; i. e. better standards of living and care. Much debate of recent years has been waged over the question of the incidence of rheumatic infection in children with and without tonsils but at present the weight of evidence leans toward the idea that rheumatic infection is somewhat less common in children tonsillectomized. There is no question that rheumatic infection cases show a high rate of previous tonsil infection.

Exciting cause. The hypothesis that in rheumatic fever there is a *hypersensitive state* which is not strictly strain specific, but embraces a wide range of streptococci, reconciles the divergent observations of many workers who have each discovered a different specific bacterial entity; such as the micrococcus of Poynton and Paine, the 3 types of Rosenow,

CAUSE	TUBERCULOSIS INFECTION	RHEUMATIC INFECTION
	Tubercle bacillus.	Probably a virus or a streptococcus or an allergic reaction to some element from various streptococci.
Portal of entry of infection.	Mouth to throat, lung or intestinal.	Mouth, supposed entry through tonsils, pharynx or intestinal tract.
Spread in body.	Mainly lymphatic system.	Mainly by blood stream.
Age of initial onset.	Majority in childhood and adolescent ages.	Same
Affects	Many organs.	Same
Duration and prognosis.	Long—difficult to tell when cured—is arrestable.	Same
Stages	Early Late	Inflammatory Degenerative
Allergy	Early hypersensitivity, later gradually lessening.	Same
Relapses	Frequent—some perhaps allergic in nature aggravated by upper respiratory infections.	Same
Average length of time to arrest disease.	6 months to 3 years.	Same
Treatment	(1) Prolonged rest followed by gradual exercise. (2) Malnutrition diet. (3) General hygiene. (4) Heliotherapy, natural or artificial. (5) Removal focal infection. (6) Symptomatic drugs.	(1) Rest followed by gradual exercise. (2) Malnutrition diet. (3) General hygiene. (4) Heliotherapy—natural or artificial. (5) Removal of Focal Infections. (6) Symptomatic Drugs.
Specific treatment.	Possibly tuberculin is so regarded by some.	Salicylates lessen pain, swelling and fever or exudative symptoms but no proof as yet that they affect length of disease or proliferative symptoms; antisera and vaccine treatment now being tried.

the *Streptococcus cardio-arthritis* of Small, and many others. In other words, rheumatic infection can be regarded for the present as an allergic state due to the hypersensitiveness of given individuals to some particular strain of streptococcus to which they have become allergic from repeated infection or continued focal infection.

PATHOLOGY

The pathology of rheumatic infection varies according to the tissue involved, duration of the disease, and virulence of the infection. All pathologic forms express in one way or another a type of reaction to focal destruction. One form is the sub-miliary nodule (or Aschoff body), a central area of granular necrotic material surrounded by large cells, many of them polynuclear giant cells. This form is

found arranged in a rosette around blood vessels, mainly in the myocardium and subcutaneous nodules. Swift describes similar areas of necrosis surrounded by cells in various stages of necrobiosis in synovial membranes removed by biopsy early in the course of an acute arthritis.

Another form of pathologic reaction is exudation of fluid and cells as in rheumatic pericarditis, pleuritis and polyarthritis. In recent studies of rheumatic pneumonitis there have been found present marked endothelial proliferation, with the cells rising chiefly from the capillaries associated with severe lesions in the pulmonary blood vessels. The most important pathologic findings of late have emphasized the blood vessel lesions in rheumatic infection, which can now be looked on as a disease of the vascular system rather than of

joints. Endovascular lesions, mural arterial changes, and perivascular lesions accompanied by exudation, emboli and proliferation of cells are found in diseased tonsils, rheumatic nephritis and intestinal blood vessels in rheumatic infections, and also in the brain in cases of rheumatic chorea. Thus, in all of the known rheumatic lesions, we find different forms of what is essentially a perivascular lymphoid infiltration, a non-suppurative inflammation, which goes on eventually to the production of scar tissue. There are secondary changes in the tissue in the immediate vicinity of the blood vessels.

As to the symptomatology and behavior of the different forms of rheumatic infection, a few important points may be noted. In children the cardiac elements predominate, but in adult life the arthritic element, first acute, later chronic, is the outstanding factor. In children the polyarthritis may be acute but more frequently takes the form of subacute or mild joint or muscle pains, the so-called "growing pains". These exudative symptoms of pain, fever and swelling in the acute cases are very susceptible to large doses of salicylates.

In the light of recent electrocardiographic studies showing delayed conduction time in many forms of rheumatic infection, it is probable that a rheumatic carditis is present in practically all cases of rheumatic infection. As most of these begin in the myocardium, and rheumatic myocarditis is often a very difficult lesion to diagnose clinically, we may have to follow cases for years before an endocarditis or pericarditis or other more recognizable clinical entity makes itself known. Thus, all cases of acute polyarthritis, joint pains, chorea and possibly frequent tonsillitis, should be followed for at least 5 years before we can feel a patient is free from heart damage. The polycyclic and chronic nature of rheumatic infection in children is the predominating form.

In regard, further, to the child heart, remember the anatomic difference between the child and adult heart. In the child we have a small bottle, with very elastic walls, and a large bottle neck, which favors the easy outflow

of blood. This is further aided by marked elasticity in the great vessel walls. In the adult heart we have a large bottle, with comparatively inelastic walls, a small bottle neck, and often some lack of elasticity in the great vessels. Thus, with about the same amount of cardiac disease, the child may be going to school, and no one be aware of its having heart disease, while the adult with comparable heart damage may have edema around the ankles, some shortness of breath, slight cyanosis, and enlarged liver. On the other hand, when a child does develop these symptoms of congestive heart failure, we are in serious trouble. Children do not die of valvular lesions of the heart, but they do die of progressive, rheumatic, inflammatory *myocarditis*, which is not very amenable to any known drug or treatment. We may repeatedly patch up the adult heart with the scarred myocardium, accompanied by auricular fibrillation or other arrhythmic difficulty, by the use of digitalis and rest, but drugs do very little for the failing child heart. Most children die with heart disease in the first attack of congestive heart failure and very few survive the second attack. Our success with children must come from prevention of rheumatic infection or rendering the rheumatic infection quiescent, *before* it reaches the stage of congestive heart failure.

Some of the work now being done on the differentiation of rheumatic chorea from other choreic forms, and more efficient treatment, hold considerable promise for the near future. While some have questioned of late the dictum that subcutaneous nodules always mean a severe rheumatic infection and fatal ending, it remains true in the majority of cases seen. As to the blood, in most cases a leukocytosis means an active rheumatic infection. In prolonged cases when anemia is present the rate of recovery from the anemia is a fair index of the patient's tendency to overcome the infection. Rheumatic infections of the pharynx, tonsils, and kidneys are probably closely related, as the blood vessel changes in each are very similar. The weight curve in children with rheumatic infection, without edema, should be closely watched as an index of successful progress.

DIAGNOSIS

In most forms, a continuous careful observation of the case will make the diagnosis clear. In rheumatic polyarthritis the acute form rarely presents any difficulty, because of the sudden appearance and subsidence of acutely painful, swollen and tender joints, migrating in nature, accompanied with fever, sweats, prostration, leukocytosis and other typical signs. The subacute joint and muscle cases, however, often require a good deal of differential study in order to classify them as definitely rheumatic in origin. The so-called "growing pain" group, particularly in the knees and legs, must be differentiated from orthopedic defects; this is not always simple, as an orthopedically perfect set of leg bones, joints, muscles and foot arches is as rare as a perfect set of teeth.

The simplified diagnosis of the rheumatic heart from non-pathologic heart conditions and congenital heart lesions, together with a differential diagnosis of the various valvular heart lesions, will be omitted, as it was presented by the writer in a paper before this section 2 years ago.

Mild chorea and cases of habit spasm are often easily confused at first, but on continued observation the purposelessness and variability of choreic movements contrast with the steady repetition of the habit-tics.

The diagnosis of rheumatic forms of pleurisy and pneumonitis from other kinds is difficult, being based mainly on associated rheumatic infection conditions, or history, and the marked predilection for the left base at onset. Rheumatic subcutaneous nodules present no diagnostic difficulty. Rheumatic kidney infections are necessarily predicated on associated rheumatic infection proof.

We do not know how to diagnose a rheumatic tonsil when we see it, as all of the evidence of rheumatic tonsillitis is based on 2 factors; first its frequent association with many forms of rheumatic infection, and the characteristic pathologic changes in and around the blood vessels found after removal. Since Small described a typical entity in the form of a rheumatic throat, I have traveled to many clinics to learn to recognize it, in-

cluding the rheumatic wards under Small himself, and I confess that to me it is yet indistinguishable from the acute throat of influenza and the chronic pharyngitis associated with sinusitis or infected tonsils. I hope that in the discussion some of you who have had better luck will present a clear picture of how to diagnose a rheumatic throat. This is of great importance, for if we could recognize a rheumatic throat, it would go a long way toward solving many doubtful cases suspected of rheumatic infection.

PROGNOSIS

The prognosis as to life, of rheumatic infection in children, largely hinges on the main or central lesion of carditis, around which all of the other forms revolve. None of the other forms mentioned have any mortality *per se*, except the rheumatic hyperpyrexia rarely observed in rheumatic polyarthritis, or occasionally a rheumatic pneumonitis. Of the various valve lesions in children, cases of mitral insufficiency are the most likely to become healed or arrested and remain quiescent throughout childhood. Many of these probably will have a shortened span of life after the age of 40-50. Aortic valve disease unassociated with other valve lesions gets through the age of childhood with a low mortality, which unquestionably rises rapidly in early adolescent and adult life. Mitral stenosis, with or without lesions, is usually associated with progressive rheumatic infection of the myocardium and elsewhere, and is the lesion responsible for most of the congestive heart failure and cardiac deaths that occur in childhood. The 2 streptococcic forms of bacterial endocarditis, some of which may be regarded as cases of rheumatic infection plus a streptococcic bacteremia, have of course a gloomy prognosis; all of the hemolytic and all but 3% of the viridans type succumbing.

The prognosis of rheumatic infection as to invalidism and cure, depends on the various forms of the infection and tendency to relapse observed in any given case. In the light of our present knowledge it is best (as in tuberculous infection) to talk about *arresting*

rheumatic infection rather than *curing* it, for we do not know when it is cured. In our children's cardiac clinic we require a minimum of 5 years' absolute quiescence of every phase of activity of rheumatic infection before we regard a case of rheumatic infection or a rheumatic heart disease as arrested.

TREATMENT

Preventive. From the standpoint of prevention, our present lack of knowledge of the specific etiologic agent handicaps us a great deal. St. Lawrence's original study of the multiple incidence of rheumatic infection in families does not decide for us whether contact or lymphatic constitutional predisposition is the most important agent. The bulk occurrence of rheumatic infection in the social scale where poor hygiene and malnutrition are commonest, suggests as our best preventive means improvement of child hygiene and nutrition by every possible method.

As to prevention by elimination of focal infection, too much attention has been paid to the tonsils, because of their obviously close relationship to rheumatic infection, and not enough to other areas. If we accept the hypersensitiveness to streptococci and their toxins theory, already quoted in this paper, and realize the rôle of streptococci as secondary invaders, we must rank with the tonsils the whole gamut of acute and chronic infections of the upper respiratory tract, headed by that yet poorly understood and unconquered enemy, chronic recurrent paranasal sinusitis; also the host of chronic infectious conditions of the intestinal tract or any other areas of focal infection that harbor streptococci, all being potential avenues for entrance of rheumatic infection.

Under what might be listed as a semi-preventive measure, examination of the heart at regular intervals of 3 months or oftener should be practiced following rheumatic polyarthritis, chorea, or any combination of marked rheumatic infection group symptoms. This would lead to earlier and therefore more effective treatment.

General. In the treatment of individual cases there are 2 indications; first relief of

symptoms, and second, measures directed toward rendering inactive the rheumatic infection. Under the first heading, besides symptomatic drugs, the use of large doses of salicylates is remarkably effective in relieving exudative manifestations, shown typically in their prompt effect in reducing pain, fever and swelling in rheumatic polyarthritis. They fail to influence the proliferative elements, however, as shown in their manifest inefficiency in chorea.

Although in rheumatic carditis in adults digitalis is a powerful crutch in heart failure, it is in children but a weak reed to lean upon. This is due to the fact, previously mentioned, that in children we have an inflammatory rheumatic myocarditis to deal with, and in rheumatic inflammations digitalis is impotent and has little or no place.

Measures directed toward rendering the rheumatic infection inactive are, first and foremost, prolonged rest. As long as there is any evidence of rheumatic activity which can be measured by fever, however slight, increased pulse, loss of weight, increasing anemia, high leukocyte count, and in rheumatic heart cases by loss of cardiac strength (which can be estimated by several means) these patients should be kept at complete rest. As they improve, partial rest, with graduated exercise to improve the heart muscle, and general tonic convalescent measures, such as are used in any chronic condition, should be given. Heliotherapy, natural and artificial, is of great value. There is no special diet for rheumatic infection. Diets used in malnutrition are useful. Elimination of focal infections is of course in order. As to when this should be done, as for instance a tonsillectomy, there are 2 opposing opinions. Our feeling is that these should be done, if possible, during intervals of rheumatic infection quiescence, as it is our opinion that subsiding infections can be flared up by surgical procedures.

Foreign protein therapy and rheumatic antisera have seemed in some cases to have caused a temporary improvement, but our hope for the future must lie in the gradual production of an immunity by some immun-

izing method such as vaccines. Recent advances along this line by several workers hold out considerable promise for the future.

Institutional. In conclusion, let us consider briefly the clinic and institutional care, or bulk treatment, of rheumatic infection. Cardiac clinics, pediatricians, and cardiologists are gradually making the medical profession, and through them the public, "rheumatism infection conscious", and this is a gratifying beginning, but in the proper convalescent care of the rheumatic infection child, which is by far the most important link in the treatment chain, we fall woefully short. In the best medical centers of the United States, for each 10 children who need prolonged after-care of some phase of rheumatic infection for periods of 3 months to 3 years we have but 1 bed available.

In New York City, our heart association has become a component of the New York Antituberculosis and Health Association because we had very similar health objectives. Now let us carry this a step further. It is a fact that in every public or private preventorium or sanatorium for tuberculous children in this country, 1 ward could be filled with tuberculous children and 1 with children having rheumatic infection, and with trifling changes all could be treated alike, with the same equipment, and medical and nursing staff.

Therefore, let me suggest that our Pediatric Section officially take steps to make it possible for the child who is a rheumatic cardiac cripple, or suffering with other forms of rheumatic infection, to be legally admitted on a physician's request to the New Jersey institutions for children with incipient tuberculosis and there given the prolonged convalescent care that these patients must have to render their disease inactive and restore them to usefulness.

If we can set the ball rolling by which these children could be admitted to all such institutions in the United States, we shall have made a distinct contribution to the solution of the problem of rheumatic infection in children, which is one of the outstanding ques-

tions challenging the best thought of the pediatric world today.

DISCUSSION

Dr. Irving Okin, (Passaic): Dr. Nichols has really summed up the facts and ideas regarding rheumatism so thoroughly that there is not much I can add to such a comprehensive paper. It is based not only on thorough study but on long experience and his ideas are the result of his many years of experience in New York in a large clinic.

I liked his conception of rheumatism in relation to tuberculosis. I think it gives the man who is considering the subject a much better idea of the whole question. We are too apt to think of one attack of rheumatism being the last but we know it is not, that there is a flare up from time to time in a long continued infection. Certainly his table proves many of these characteristics. Too often the symptoms do not present themselves early, as we only see them after the cardiac damage has been done. His suggestion for repeated examinations in arthritis is a very practical one. The convalescent care is a very important question and I believe if the Society would go on record to further the institutional care of these children it would certainly help to reduce invalidism in this disease. When Dr. Small reported his first work on serum treatment of this condition we thought we were reaching a point of definite therapy. I am here reporting on 32 cases of chorea and 2 cases of acute rheumatic fever in which Dr. Small's technic was carried out; this is from an unpublished paper by Drs. Allen and Dennett. These patients were kept in bed and isolated. In the first group no salicylates were given, nor sedatives, simply the serum treatment. The next group, for from 5 to 11 days, received serum, luminol gr. $\frac{1}{4}$, sodium bicarbonate and aspirin. In the second group improvement followed rapidly. In a third group, salicylates were given within 24 to 36 hours and here the best results were shown. In other words, they give the serum antigen, and medical treatment. In the fourth group there was simple rest in bed. Over a period of 18 months there were only 4 recurrences. In 10 cases that received no serum, but received medication, there were no recurrences at all. In other words, the cases that received serum showed a greater proportion of recurrences than those that received no serum at all. They believe, and it is obvious, that the treatment of giving serum and salicylates really corresponds to getting salicylates and a non-specific protein. They ask, is it fair to make these patients have serum treatments? They ask why a typhoid vaccine cannot be used, and some one has even suggested giving them rabbit serum rather than to sensitize them to the effects of the horse serum. I believe that the results with the use of Dr. Small's serum are not quite as conclusive as he shows in his papers, and I believe that here we have fallen down on another possible therapeutic measure in rheumatism.

Dr. Stanley Nichols (Asbury Park): There is nothing further to say except regarding Dr. Okin's reference to the work that has been done on chorea. We have all learned to be very skeptical of things that go too fast for us. When Dr. Small discovered the streptococcus cardio-arthritis and the chorea serum he took our breath away and we were rather content to watch for a while. Chorea is still a much debated entity. We are informed by Dr. Wile that the neurologists do not really know where it belongs. We may learn if we ever find out

its exact etiologic basis. One neurologist said he could cure chorea by reëducation in a few days. I sent him several cases. He took them in the hospital, had them do certain relaxing exercises, reëducated their nerves, and the chorea disappeared. But it came back again as soon as his daily direction of the exercises stopped. I told him that seemed as if he were holding the movements in check. He said the exercises would have to be continued until cure. However, all of these things offer a lot of hope and we certainly need it in the chorea group. In this study, the controls did better than those being treated, but we have had so many different experiences with chorea that we are almost back where we started, so far as treatment is concerned.

ETIOLOGY OF GLAUCOMA, WITH REFERENCE TO COLLOIDAL CHEMISTRY

H. L. HARLEY, M.D.,
Atlantic City, N. J.

In considering the etiology of glaucoma from the standpoint of biologic chemistry a problem is indicated rather than a solution provided. The questions raised are of such character that much more evidence is necessary before they can have clinical utility. An attempt will be made to correlate some of the vast amount of fragmentary evidence which seems to point in a definite direction.

(1) The tissues of the eyeball are looked upon as living protein colloids.

(2) The entire uveal tract is considered as an osmotic system.

(3) The vorticose veins are looked upon as the chief drainage of this osmotic system; Schlemm's canal being an auxillary for the anterior segment.

(4) The colloid structures swell as a result of abnormal chemical reaction of the body fluids conveyed by way of the blood stream.

(5) The structures of the eyeball must be considered in closer relation to each other than has been done in the past, and the eye in closer relation to the health or ill-health of the body.

(6) An attempt will be made to outline a few of the difficulties to be overcome.

When for a long time our ears have been attuned to a dogma it takes a great intellectual effort to dislodge it. The uprooting of old and fixed ideas is a long and painful process.

I fancy there are several erroneous ideas in ophthalmology that stand in need of revision. It will be difficult to unfasten and turn them loose because each bears the weight of a master's great name. Rightly, we reverence the opinions of those men who stabilized enough of the procedures in ophthalmology to make it the first of specialties to branch out and stand alone from the parent stem of medicine. But they would have been the last to claim that their words were final or to have wished us to continue their ways unprogressively. If we are to be the worthy successors of those men we must cultivate and maintain the scientific attitude of mind, and that implies a readiness to admit that what passes for knowledge at the moment is sure to require correction or to be supplemented by new discoveries if progress is to continue. This is the characteristic attitude of the scientific mind, and must be ours, as contrasted to the mind enslaved by the dictates of tradition.

Progress in science has always come through the then existing working unit being submitted to further examination. Each outstanding advance has been marked by the discovery of a further subdivision of the old units and a final correlation of the new ideas into a working theory for the next step forward. In the few past years a vast amount of work has been done and scores of articles have appeared bearing on the subject of glaucoma. In several instances "schools of thought" have been built around some theory as opposed to another theory, and these have called forth controversy leading too often to obscurity. Criticisms from across international borders are often quite scornful. I do not here intend to enter into controversy nor to give a bibliography of what has been done. The best summarizing that I know of is that by Dr. S. R. Gifford in his "Pathogenesis of Glaucoma" (Arch. Ophthalmol., Jan. 1930).

Dr. Martin Fischer, physiologist, of Cincinnati, more than 20 years ago gave us a lead, which, had we followed it through might have advanced our knowledge far in the right direction. Strangest of all is how near von Graefe came to pointing the way to the true explanation. And it will be cause for hu-

mility indeed, if we find that we have wasted all these years between. He assumed glaucoma to be due to an increased secretion by vessels of the chorioid as a result of inflammation of the latter. When it was objected that no ophthalmoscopic signs of inflammation existed he clung to his theory but modified it by assuming a serious chorioiditis with transudation without any of the coarser anatomic changes. Without venturing to set the seal of authority upon my opinion, I am going to assume that he was nearer the truth than we have been since. In spite of the fact that the ophthalmoscope was then new and crude, and that the colloidal state in chemistry had been discovered only a few years before, von Graefe seems to have visualized completely the whole picture of glaucoma. One is tempted to wonder, whether, if the great mind had been given a few more years free, as he was, from the multiplicity of theories which deter us, might he not have discovered the cause of glaucoma.

The *etiology and mechanism of glaucoma* as given in the text-books is far from satisfactory, even to the minds of their authors. Each expresses the regret that much is to be desired to complete our knowledge of the subject. The anatomy and grosser pathologic changes are fairly well known. It is an accurate knowledge of the normal physiology of the eye that seems to be lacking. Professor Fuchs says: "Precise as is our information in regard to the anatomic changes * * * in glaucoma, we must be correspondingly cautious in the interpretation of their significance if we are bent upon finding out the *anatomic cause of glaucoma*. Most of these changes, if not all, are simply the result of the increase of pressure, as is, without a doubt, the case with regard to the atrophy of the tissues and excavation of the optic nerve. To find those changes which precede the increase of tension and cause it, we should have to examine the eye in the earliest stages of glaucoma. The opportunity for making such an examination has hitherto been but rarely offered us. Indeed most of the glaucomatous eyes that have been examined are those which have been enucleated in the *stage of glaucoma absolu-*

tum because they are painful." (The italics are mine.)

I have quoted this from a great living master of ophthalmology to point out that our search is misdirected both in *what to look for* and *where to look for it*. The greatest obstacle to advance, in our branch of biology, is that we attempt to study life where no life exists; on the autopsy table, in prepared specimens under the microscope, and in test tubes. These are great aids but they do not tell the whole story. We must realize that we are dealing with living matter; protein colloids plus that mysterious something we call *life*. We cannot take one part of it in a test tube, detached from life, and expect it to behave as when it was an integral part of a living whole. In some parts of our problem we must be content to deal with unknowns but never to lose sight of their relation to the whole.

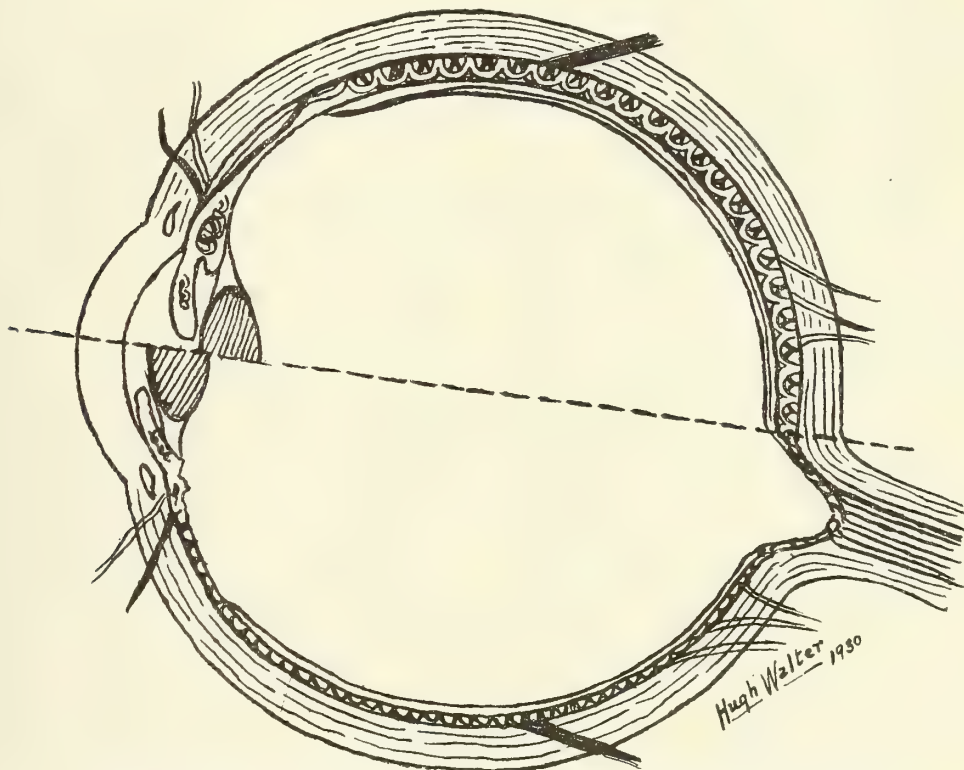
Since the days of the first of the masters it has been taught that glaucoma is caused by a blocking of the filtration angle—the spaces of Fontana, Schlemm's canal, etc.—and the consequent retention of what should be drained from the eyeball, with an increase of intra-ocular pressure. Consideration of a schematic drawing will show that the old teaching is true, but inadequate. It even stops short of a full mechanical explanation.

The upper half of the chart represents the structures in their normal position. The lower half represents them as displaced and pressed upon by increased intra-ocular pressure. The tough, fibrous coat of the eyeball is weak at one spot, the lamina cribrosa, and this is herniated backward. Clinically, this is cupping of the disc. The delicate retina is edematous and its complex nervous mechanism is being destroyed by pressure. Blindness from glaucoma is due to direct pressure on the retina, quite as much as to cupping of the disc. Are fibers more sensitive than terminals? The chorioid, a vascular sponge, is being squeezed between a swollen vitreous and a thickened, resistant sclera. The ciliary body and iris, also spongy, are pushed forward and thinned. There is scar tissue formation throughout the uveal tract but most marked where there is loose cellular tissue, so the root

of the iris becomes adherent to the cornea at the angle where the products of inflammation accumulate in an effort to escape through the anterior drainage channels." The little that remains of the anterior and posterior chambers contain an aqueous more concentrated than normal.

Plainly these structures are displaced because they had to give way to some force. That force is chiefly the swelling of the vitreous. In addition to this the coats of the eyeball also swell, i. e., become thicker from

gestion. As another important factor, the vorticose veins and the canal of Schlemm have their lumens encroached upon because they are within this swollen and resistant scleral tissue. As for the adhesions at the filtration angle, they can be explained by applying our recent knowledge on the mechanism of inflammation. The result of pressure increase to the iris and ciliary body meets with the same reaction that a similar stimulus would call forth elsewhere in the body, namely the transudation of leukocytes, fibrin, etc., which, if long con-



Schematic drawing—Upper half, normal; lower half, structures displaced, others squeezed by increased intra-ocular pressure.

the imbibition of water just as does the less solid gel, the vitreous, and in contracting further lessens the capacity of the envelope, thus adding to the increase of intra-ocular pressure.

The clinical sign of cloudiness of the cornea is an excess of imbibed water plus wandering cells in an otherwise transparent structure. The wandering cells are leukocytes, normally, and in cloudiness of the cornea they are in excess, as they would be in any other tissue in a state of acute con-

tinued and allowed to age, goes through the well known process of adhesion, organization, and scar formation. In the loose cellular tissue at the root of the iris, this becomes a peripheral anterior synechia. Add to all these the swelling of the lens and you have a picture of the imbibition of water by colloids which in our case we call glaucoma. I say "our case" because, already, other branches of medicine, notably brain surgery and urology, are treating disease conditions along these lines laid down by recent advances in

physiology. Shall we permit them to reach the stake so far ahead of us?

The *classifications of glaucoma* are various. What we call glaucoma is the symptom complex of poor vision, increased intra-ocular pressure with or without pain, a peculiar congestion of the vessels about the limbus, cloudy cornea, shallow anterior chamber, wide pupil, cupped disc, and certain field changes. These are symptoms common to a variety of causes not widely separated. For our purpose the division into primary and secondary is sufficient. If our theory has any value, it can be shown that the subdivision of primary glaucoma depends on how long and with what intensity the morbid processes have been operating at the time of observation, and not upon a great difference of underlying cause, although different types of toxins and varieties of trauma may have been operative. Secondary glaucoma, too, will be explainable on the basis of interference with the mechanism of osmosis, with or without certain chemical factors. One explanation, unmodified, will not fit all cases that seem, on the surface, similar.

The uvea has been looked upon as consisting of 3 distinct parts, each with its separate function. If the function of the chorioid is to nourish the retina, then it is difficult to imagine the purpose of the retinal arteries, capillaries and veins. The ciliary body was supposed, among other things, to "secrete" the aqueous. It has been shown that the aqueous is not a secretion but a dialysate of capillary blood. The iris is the diaphragm for light control. We must consider the uvea as an entity in at least one of its functions. It is the osmotic system of the eye and upon it the metabolism of the eye depends, although the retinal vessels, too, may play a part. When we think of the arrangement of the chorioidal vessels—progressively smaller from without inward to the capillary layer—and of the ciliary body principally of vessels thrown into folds or processes to give increased area, and then the iris with its loops of vessels, it is difficult to think of them apart. Anatomically, they are continuous. "Such is the abundance of blood vessels which it contains that it consists mainly of them; and by this fact

its great tendency to become inflamed is accounted for". (Fuchs.) A perfect osmotic system and one easily insulted.

What about the arterial supply to the uvea, and its venous drainage? It is supplied by the long and short posterior ciliary arteries, which anastomose with the anterior ciliary arteries; thus giving a collateral arterial supply. There are anterior veins corresponding to the anterior arteries accompanying the 4 rectus muscles; these drain Schlemm's canal. The greater part of the blood leaves the eye by way of the vorticosae veins. The canal of Schlemm is a venous sinus surrounding the base of the cornea and the important place it has held in the causation of glaucoma is probably erroneous. Its chief function is probably as a drainage basin for the corneal spaces, surrounding as it does the base of the cornea like a moat to a castle. The disposal of blood from Schlemm's canal is by the anterior ciliary veins whose capacity is small compared with the capacity of the vorticosae veins.

So, we dismiss the idea of the chief cause of glaucoma being due to blocking of the filtration angle and interference with the outflow of fluids through Schlemm's canal. It is the most easily observable, and one of a series of events. It seems more rational, in the light of recent advances in physiology and with the aid of our limited knowledge of the behavior of colloids, to consider its vast area of capillary walls as permeable membranes and the entire uveal tract as an osmotic system. Every insult sustained by the capillary walls from birth until death lessens their permeability and predisposes to glaucoma; be they local inflammatory, traumatic or biochemical.

The "circulation of intra-ocular fluids", by which is meant the aqueous, has probably been given exaggerated importance. Circulation of intra-ocular fluids as such does not exist. There is a stirring up of aqueous due to extra-ocular and intra-ocular movements and temperature. It seems preferable to think of the interchange of fluids, not of the aqueous only, but of the vitreous also, for how else is the vitreous to keep its health and transparency? It has been shown that the vitreous is identical with the aqueous except that it con-

tains in addition a fraction of some substance whose function is gelibility. Speaking in terms of colloid chemistry, the aqueous is a rather dilute sol, while the vitreous is a soft gel. Also the vitreous has no hyaloid membrane, as has so long been taught. (Duke-Elder 1929.)

Anatomically, the eyeball consists of the sclerocorneal envelope; the uvea with blood vessels and circulating blood, muscle tissue, pigment and connective tissue; the retina with its blood vessel system; the lens; the vitreous; and the aqueous humor. These are all hydrophilic protein colloids (7 or more), all of different density and capable, under varying conditions, of imbibing water in a milieu of appropriate reaction. It can be readily demonstrated in the laboratory that each structure making up the eyeball swells at a definite rate when in the presence of water plus a definite chemical reaction. The readiness of the colloidal swelling of the various tissues of the eyeball is directly dependent on their density and mass. The vitreous being most elastic and of greatest mass swells more quickly and probably with slighter chemical changes, and with more marked results (symptoms), than the denser, less massive parts.

It has long been known that the sclera, in glaucoma, is thickened by swelling, but I do not know that it has been pointed out that this swelling of the sclera encroaches upon the arteries and veins which, mostly, pass through by an oblique course, and at the same time encroaches upon the capacity of the globe. Naturally, the return, or venous, flow is more impeded because of the lesser force behind it, resulting in further congestion. We have agreed that the picture of glaucoma—the increase of intra-ocular tension and all its sequels—is due to a swelling of the vitreous, mainly, but also of the other colloids in proportion to their density. Thus, the swollen, resistant sclera exerts pressure inward against the swollen vitreous exerting pressure outward. Is it any wonder, then, that the tension rises when we consider all these gross interferences to a delicate mechanism? We know the addition of but 0.02 c.c. of fluid to the contents of the eye will cause a rise of intra-ocular pres-

sure from 20 mm. Hg. to 60 mm. Hg. (Baurman.)

My own experiments, conducted with the help of my son, showed that the addition of 0.04 c.c. (about $\frac{3}{5}$ of a drop) of physiologic salt solution to the contents of a living eye caused the pressure to rise from 28 mm. Hg. to 60 mm. Hg. The further addition of 0.05 c.c. (total 0.09 c.c.) caused the pressure to go to 78 mm. of Hg., which is almost "stony hardness".

The cause of the swelling of the vitreous must be sought in the altered reaction of the body fluids, which are conveyed to the eye by the blood stream. The objection will immediately be made that the reaction of the blood is constant. This statement has become a catch word, but a moment's reflection on other disease conditions at once refutes it. The changes are subtle and we have not yet found how to direct them. But, given a change of reaction sufficient to cause a swelling of the colloid vitreous and an osmotic system acutely insulted or damaged over a long period of time, you have an attack either of acute or of chronic glaucoma.

The causes operative to damage the capillary walls of the uvea and alter their permeability are toxic and traumatic. Each acute or chronic infection that the individual suffers leaves the scar of its toxin or actual micro-organismal invasion in our blood vessel walls. A living osmotic system having to deal with disease products soon becomes damaged, and permanently so. The attack of scarlatina at 6 is the cause of nephritis and death at 60. The traumatic causes operate differently but the end-result is much the same, namely, interference with permeability by exudative products. The traumatic cases are commonly acute and may have recovery with no subsequent attacks. The question of frequency of occurrence of glaucoma in hyperopic, as compared to myopic, eyes is closely related to traumatism, but will be dealt with in a paper to appear later.

Treatment of glaucoma in the future will take into consideration the chemical imbalance of the body fluids. It is our problem to find how living colloids function, how they are

nourished in health and disease, how and by what they are stabilized, and what are the influences that make them lose their normal function and stability. The problem is not a simple one but neither is it impossible. Considerable collateral information is already available for our adapting. A brief attempt will be made here to point to some of this. We must tear down the boundaries between our specialty and chemistry and physiology. One way to hasten this union is to employ a nomenclature common to all, thus giving ourselves access to the work in the 3 fields and at the same time a freedom of thought to center our attention on the phenomena without thinking to what field of study they belong. As Sir James MacKenzie said, "every practitioner becomes a research worker". We need the help of the chemist. It has been said that proteins are colloids which in their behavior break all known laws of physics and chemistry. What are definite laws in ideal chemical systems become tendencies in actual, living systems. The type of chemical action characteristic of life processes seems to be catalysis, a phenomenon involving a large number of influencing factors and varying widely under slightly modifying conditions of temperature, light, acidity, alkalinity and surface area. Our goal in this field is not going to be reached through application of old, well-known laws and classical doctrines. We shall have to hew our way through this jungle of physiologic chemistry as others have done. The task is certainly not more involved than that worked out by Wassermann in giving us the complement-fixation test. We must, in deducing our facts, be content in handling our material intelligently without knowing the exact formula of many elements that enter into reactions yet being so far master of the situation that we can predict definite results from established technic. Many important steps have already been taken that need no immediate retracing, notably analyses of the nature and content of the aqueous and vitreous. That many procedures which readily come to mind are not included in this brief paper does not mean they are excluded. To lay down some

plan of attacking the subject is to ensure the shortest route to success.

Extensive clinical studies of diseases of the body, both organic and infectious, must be made to learn what part they play in laying the foundation for glaucoma. The body fluids must be researched until the reactions are found which are the indices of an approaching attack of glaucoma. This has been done with negative results, but they cannot be considered final. Entirely new clinical laboratory procedures may have to be developed, or we may find them in some already well known routine. Moreover, there may be different agents causing the acute and the chronic attacks. Work on dead animal eyes will lead to valuable conclusions if we nearly imitate the conditions prevailing in the human body, remembering meanwhile that laboratory findings may be quite different from the behavior of living tissue when the same tests are applied. Experiments on the lower animals cannot give us as much help as in an infectious or nutritional disease. But they are not to be overlooked as we round up the final proofs of our search.

Finally, the effect of electric charges upon the absorption and discharge of water by colloids is important. The effective surfaces of colloids are enormous, and as has been said earlier, catalysis may be the function of prime interest. Granted that we shall find the offending agents, how and with what remedies shall we overcome them? We have the intravenous route, the absorbing membranes of stomach and large bowel, and the subconjunctival spaces. Use of the hypertonic salts solution has been spoken of with enthusiasm (as if it were a new discovery) and with good reason, but it does not exhaust the possibilities; it only points the way. Shall we assist the action of our systemic remedy by doing a posterior sclerotomy or a scarification of the scleral fibers? Possibly. The method of approach, in treatment, will vary according to the morbid features involved. It does mean, however, that we must return from a narrow specialization to our old place as doctors of medicine. The ophthalmologist must have full medical and surgical control of his

patient, himself surveying and using all the evidence.

Will this mean that the clinical study of the patient, being so thorough, all cases of glaucoma will be treated medically, and operative treatment be relegated to the past? No, because many cases will be discovered too late, in the irreversible stage. Surgery in glaucoma will continue to hold the same place it does now, a make-shift procedure, not a cure.

But first we must find the cause, for, as we were told 2500 years ago, "To know the cause is nine-tenths of the cure".

DIAGNOSIS OF GLAUCOMA

W. D. OLMSTEAD, M.D.,
Atlantic City, New Jersey

It is a comparatively simple matter to set down on paper the stereotyped subjective and objective signs that are usually stated when the question of diagnosis of glaucoma is brought up, and it would seem rather unnecessary to do so to a group of persons doing eye work, such as is here assembled, but it would seem most desirable to have these points stressed to the general practitioner, who frequently sees the early cases first, in the hope that he might refer such cases for an early diagnosis, when we can best stay the process and conserve the patient's vision. In the writer's opinion, the important thing is to so revise our view-point regarding the cause and pathology of glaucoma as to make the diagnosis one based on a more rational foundation.

When N. L. MacBride wrote his text-book on "Diseases of the Eye", in 1897, he stated (page 243) that "the pathology of glaucoma is obscure" * * * "the theories regarding the causes of the increase of tension are many and contradictory, and we do not feel warranted in decreasing them". While in this paper we are properly concerned with diagnosis, it is of interest to note that in the 30 or more ensuing years, we are still to be enlightened as to the true pathology and cause.

The cause of glaucoma may eventually be

found in regions remote from the eye; possibly it arises from a focal infection, constitutional disorder, endocrine disturbance or it may be due to a specific microörganism. The manifestations of glaucoma which we see may be only the after-results of a primary condition elsewhere. The recurrent attacks and complex symptomatology of glaucoma, it must be observed, tend to disprove this probability.

Even at the International Ophthalmological Congress at Amsterdam, in September 1929, one of the first and most popular subjects was the symposium upon the cause and non-operative treatment of glaucoma. One notes that the discussion brought out many opinions, but few really new facts were elicited. Morax seemed to show in cases of late infection following the trephine operation for glaucoma, that usually an anaërobic bacillus could be demonstrated. Passow believes that glaucoma is caused by abnormal function of the thyroid gland. Many glaucomatous patients have increased body weight and have a tendency to retain fluids. Waardenburg has called attention to the frequent association of nevus of the face with glaucoma; it occurred in 4 out of 5 of his cases.

Glaucoma is undoubtedly one of the most dreaded diseases with which the ophthalmologist has to deal. We have only to recall the oft-told pathetic story of Javal, with his keenness of diagnostic skill, going with his glaucomatous eyes from one operative clinic to another, and finally learning Braille in order that he might write a last volume on "How to be Blind". He, of all men, with his own knowledge of the management of glaucoma and with the aid of colleagues than whom there were none more able in the world, would have had his sight preserved had it not been that the resources of surgery under such conditions were totally inadequate to control the disease.

As a basis for diagnosis one must classify the types of glaucoma met with, and with our present inadequate knowledge of the actual etiology it seems best to employ the usual classifications.

We recognize primary and secondary glaucoma. Primary when the increase in pressure

or tension and other symptoms set in without any antecedent disease or injury of the eye; and secondary when the increase in pressure and other symptoms are the result of some other disease of the eye, such as posterior synechia, faulty cataract extraction, etc. Primary glaucoma is glaucoma proper and is divided into acute inflammatory and chronic inflammatory types. It is interesting to note that primary glaucoma always affects both eyes (although rarely at the same time); while secondary glaucoma confines itself to the eye which, through being diseased or injured, has given rise to the increase in tension. Glaucoma simplex, a doubtful classification, is usually mentioned as being a non-inflammatory form of the disease when the increase in tension develops gradually and keeps within rather narrow limits, and it is most probably a chronic inflammatory type of insidious onset.

Inflammatory glaucoma runs a typical course, especially in the acute cases, and can be outlined about as follows: First, are attacks of obscuration of vision. The patient states that during these attacks vision is not so clear as formerly; having the feeling that there was a cloud concealing objects from him. He also complains of a ring or halo, either red or having the colors of the rainbow, about any light in the room. Frequently, during the attack, the patient complains of a dull frontal headache and a feeling of tension in the eyeball. Examination of the eye during such an attack shows the cornea dull and diffusely clouded or steamy. This haziness is due to edema and shows that the nutrition of the cornea is evidently disturbed, such a cornea has to be differentiated from old diffuse opacities of the cornea or an interstitial keratitis, but the latter is usually seen in early youth and use of the lamp, with good illumination, easily distinguishes the condition. The cloudiness is greatest at the center and, due to uneven distribution, causes considerable visual disturbance. This corneal cloudiness also causes the halo or colored ring about lights. The anterior chamber is noticeably shallower, due to the pushing forward of the iris, the pupil reacts sluggishly and is more dilated than usual and may be oval in outline,

the intra-ocular tension is distinctly increased and often, even at this stage, ciliary injection is present. Such an attack lasts but a few hours or, occasionally, a day or so, and then the eye returns to normal function and appearance, but subsequent attacks occur at intervals of weeks or months.

In the interval between attacks the sight of the eye is normal, but there is increasing difficulty with near vision, due to diminution of the power of accommodation, and the patient will make frequent visits for a change of lenses for near vision. These prodromal attacks can be regarded in the light of abortive attacks of glaucoma, which recede before they have developed to full height, but eventually an onset, as above described, takes place that rises to the height of an acute attack, and after this a perfect return to normal is no longer possible. The tension now remains permanently elevated and the eye retains the glaucomatous aspect. Thus, following these prodromal attacks, is ushered in the *second stage* in the chronic glaucomatous evolution.

These acute attacks usually manifest themselves by violent pains radiating from the eye along the first and second branches of the trigeminus. The patient complains of pains in the head, ears and teeth, which may be intolerable. He complains of loss of appetite and sleep; frequently vomiting and fever sets in. Visual power falls rapidly and only large objects, such as the hand moved before the eye, can be recognized. The field of vision is considerably narrowed, mostly on the nasal side.

In glaucoma, according to Peter, recognized departures from the normal field manifest themselves: (1) in the early loss of the nasal field; (2) contraction of form and color fields; (3) marked contraction of the periphery with preservation of central vision for form and color; (4) sector-like defects, especially in the superior and inferior nasal quadrants; (5) scotomas of nearly every known variety.

Shrinkage of the field in acute inflammatory glaucoma is as a rule temporary. When, however, contraction becomes marked, the

fields are rarely restored to their normal limits, but mark the beginning of the more chronic process which is progressive; hence the importance of *perimetry* and frequent *studies* of the visual fields. The field changes in acute glaucoma are likely due to vascular disturbances, whereas, the changes in the chronic cases are the result largely of atrophy of the optic nerve fibers in the nerve head.

Second only to early shrinkage of the nasal field is the concentric contraction of both form and color fields. This is a late phenomenon. In fact, the degree of this concentric contraction furnishes a good indication for surgical intervention. We should remember that if operative interference is induced too late, little hope of saving the residual vision can be entertained. Extreme contraction of the fields with preservation of central vision is one of the remarkable and characteristic phenomena of this type of glaucoma. Fields of vision have been found limited simply to central fixation, with power of orientation entirely gone, and notwithstanding this the patient has found it possible to pick out a letter at a time and read fine print with difficulty. Probably, one of the greatest sources of error and surgical neglect in chronic glaucoma arises from this type of defect when perimetry and the taking of tension is not assiduously practiced throughout treatment. Any effort at diagnosis must be supplemented by careful perimetry and mapping of the blind spot of Marriotte.

Objectively, the eye presents all the appearances of a violent external inflammation—edema of the lids, chemosis of the conjunctiva, and great congestion. The injection, venous in character, has a dusky, red color. The cornea is steamy or cloudy, shows punctate dots and is quite insensitive to touch. The anterior chamber is pronouncedly shallower and the iris discolored and narrower. Thus, the pupil is dilated, frequently oval in shape, and the iris reaction is abolished. From the pupil we get the greyish green reflex—hence the name “green cataract”. The intra-ocular tension is considerably elevated and the marked corneal cloudiness proscribes ophthalmoscopic examination. After some days, or weeks, according to the severity of the attack,

improvement or even an apparent recovery sets in; the pain diminishes and afterward disappears altogether. The cornea clears up and the sight improves.

After a quiescent period of varying degree, a new attack begins—with the inflammatory symptoms less intense than the previous attack but resulting in a further reduction in sight. New attacks now follow each other at longer and shorter intervals and the sight at length becomes entirely extinct. The disease now enters on the *third stage* or so-called “absolute glaucoma”—the eye completely blind. Against the background of the bluish-white sclera are the distended anterior ciliary veins, which unite around the cornea to form a bluish-red circle of dilated vessels. The cornea is shining and transparent, but insensitive; the anterior chamber is very shallow. The iris is reduced to a narrow strip. The dilated and rigid pupil is greenish, or of a dirty gray, the optic disc deeply excavated, the eye as hard as stone. Later on, degenerative changes may make their appearance, with the final outcome atrophy of the eyeball. Thus may we chronicle a typical case of chronic inflammatory glaucoma.

Inflammatory glaucoma is a disease of advanced life, being most frequent between the fiftieth and seventieth year. It never occurs in childhood and rarely in youth. While inflammatory glaucoma is so well characterized as a disease, it is still very often diagnosed too late and the only excuse the writer offers for this paper, largely a repetition of what has been said many, many times before, is a plea for a more careful study and early diagnosis of the glaucoma and preglaucomatous cases that present themselves, for it is only in the early stages, with a rational understanding of the cause, that really worthwhile service can be rendered.

To summarize: The patient over 40 who complains of pain, radiating from the eye, intense congestion (passive in character) of the conjunctiva and the vessels about the cornea, a visual defect (constant, or one demanding a frequent change of lenses to improve near vision), definite increase of tension (T+1, T+2, by palpation and 55 to 68 by McLean's

Tonometer), halo about lights and contraction of the visual fields, particularly on the nasal side, as shown by careful perimetry, should be definitely diagnosed as glaucoma and, after reduction by miotics, should be under careful weekly observation so that operative procedures may be instituted when miotics fail.

NON-SURGICAL TREATMENT OF GLAUCOMA

J. FRANKLIN CHATTIN, M.D.,
Newark, N. J.

"All cases of glaucoma can be cured by non-surgical means." "No case of glaucoma can be cured without operation." Take your choice.

It is taken for granted that cases to be treated by miotics are those of the simple type and which are diagnosed and recognized as such before permanent damage has been done. As there are so many contributing factors in the causation of glaucoma, no intensive treatment should be undertaken until after a thorough history of the case has been made and then a complete physical examination has been undergone; then, and only then, can a prognosis be made. Having decided on the remedies to be used, the patient should be told the importance of returning at regular intervals for a check up, and so long as no loss of field or vision has occurred, and the tension keeps at or nearly normal, it may be safe to assume that all goes well; bearing in mind that the continued use of eserine frequently produces a severe conjunctivitis, so that it becomes necessary to change to pilocarpin.

Among some of the newer remedies used in simple glaucoma are adrenalin and glaucosan. Our knowledge of glaucosan dates to 1922, when Carl Hamburger advocated the use of adrenalin or suprarenin, later developing glaucosan. It is a combination of dextrorotatory suprarenin, or ordinary suprarenin, and methyl-amino-aceto-pyrocatechol, a polariscopically neutral by-product in the synthetic manufacture of suprarenin, and is in-

tended for subconjunctival injection. Continuing his researches, he developed a synthetic levorotatory tartaric acid alkaloid, derived from the suprarenal capsule, which he called "Linksglaukosan" (levoglaucosan). This, used in 2% strength and combined with methyl-amino-aceto-pyrocatechol in the same strength, proved to be active enough to use by instillation only. It causes dilatation of the pupil and decrease in intra-ocular tension. This is the preparation now known as "glaucosan". It comes in sterile glass ampoules in 2% solution and in the combination referred to ready for use.

Hamburger also described an amin derivative of ergot called aminoglaucosan (imidazoclyethylamin hydrochloride) which is supposed to be a powerful miotic, and when used in acute glaucoma is said to cause contraction of the pupil and decrease in tension.

The method of instillation of levoglaucosan is simple. The eye is anesthetized with holocain or butyn, and then, with patient in a recumbent position, 2 drops of the solution as furnished in the ampoules are instilled in the cul-de-sac. While the lids are held open, the patient is directed to rotate his globe in the 4 cardinal directions, which allows the drug to come into free contact with the globe. The drops are repeated from 3 to 5 times, at intervals of 15 minutes. In a few moments after the first drop, the eye should become porcelain white, the lid aperture widen, and the pupil dilate quite regularly, while a zone of ischemia usually develops on the lids, cheek, and temple. Practically always there is a distinct drop in tension.

Case histories are given by Elliott to illustrate the effect of levoglaucosan (Linksglaukosan) in simple glaucoma, of aminoglaucosan in acute glaucoma, and of levoglaucosan in acute iritis with posterior synechia, and in iris adhesions accompanying injuries. In 5 cases of simple glaucoma levoglaucosan lowered the tension transitorily, 5 cases were unaffected. 1 was permanently improved, but in no case was the tension permanently lowered by the use of glaucosan alone. Aminoglaucosan failed to reduce the tension in 6 cases of acute glaucoma. Levoglaucosan was valuable in break-

ing fresh iris adhesions, in acute iritis or uveitis, was of no value in separating old iris adhesions, and did not break up adhesions directly associated with injuries.

So far as can be seen neither of these drugs has any prolonged effect in lowering the intra-ocular tension. Their action would seem to be temporary and adjuvant to other treatment, postponing, perhaps, but not without any special reason replacing, operation. The action of the drugs is neither uniform nor dramatic. In chronic primary glaucoma levoglauconan cannot be depended upon to lower the tension; it does so in some cases, but completely fails in others. It appears, however, that in conjunction with eserine a good effect can be produced in a case where eserine alone has remained ineffective. In secondary glaucoma levoglauconan will succeed in rupturing synechias which with other mydriatics remain unaffected. In cases of iritis with raised tension it may be effective as a preliminary measure when hesitation is felt in giving atropin at once, or where atropin has failed to relieve the condition. Owing to the accompanying anemia, however, its repeated use would appear inadvisable in such cases.

The dilatation of the pupil caused by levoglauconan may be valuable from a diagnostic point of view, since so far as our experience goes, the dilatation is not accompanied by raised tension.

Aminoglauconan is an extremely potent miotic. It cannot be depended upon to contract the pupil and lower the tension in every case of acute glaucoma, but it would appear on occasion to be a very useful adjunct to eserine. In cases where the pupil remains dilated and the tension raised after the administration of aminoglauconan, this preliminary treatment has undoubtedly made eserine effective subsequently in bringing about a contraction of the pupil and a lowering of the tension. No case has been met with where the drug has caused a rise of tension (as has been reported) but in several cases, although given every legitimate opportunity, it has been without any hypotensive effect.

Both drugs will induce a severe reaction and pain, in some cases moderate in others involv-

ing considerable distress. The occurrence of a hypopyon ulcer without other obvious cause after the use of aminoglauconan suggests that the severity of the reaction on the superficial parts of the eye is not without danger to the cornea, especially in cases where infection is known to be present.

There is some difference of opinion among observers as to the type of case in which adrenalin is indicated. Most agree that it is ineffective in acute, absolute and hemorrhagic glaucoma. In secondary glaucoma and in iritis glaucomatosa, where it was enthusiastically recommended and where it would theoretically be of so much advantage by simultaneously dilating the pupil and lowering tension, a number of discouraging results have been reported.

Another procedure which will reduce tension in acute glaucoma, if only temporarily, and which has the virtue of being without danger, is the systemic use of hypertonic solutions. This is done with the idea of making the blood plasma hypertonic, causing absorption of fluids from all the tissues, including the eye, into the blood stream. That this actually occurs is attested by the results of Cantonnet, Hertel, Weekers and others; 35 to 50 c.c. of 30%, or 100 to 150 c.c. of 10% sodium chloride, are injected intravenously, the stronger solution producing the more rapid effect. Duke-Elder reports reduction of tension from 95 to 38 mm. by this method in 1 case and from 58 to 20 in another.

Glaucoma, a never-ending subject of investigation and interest, which still eludes the solution of many of its problems, has naturally attracted a large share of attention. Should Jonas Friedenwald's research in the Wilmer Institute, on the influence of capillary toxemia in the development of acute glaucoma, just announced at the International Congress of Ophthalmology at Amsterdam, receive confirmation, it will represent a step in advance.

SUMMARY

(1) Adrenalin or glauconan is of value especially in simple glaucoma, and by its use tension may be kept normal for considerable periods in certain cases.

(2) Miotics should be used to prevent acute rise of tension when using adrenalin and to prolong its effects afterward.

(3) Aminoglaucosan presents the danger of increasing inflammation, and fails to reduce tension in many cases.

(4) Hypertonic solutions can be depended upon to reduce tension before operation in acute glaucoma, and are without danger to the eye.

(5) If ergotamin will reduce tension appreciably, it may be of much value in a small percentage of cases, and may be tried safely in any case.

(6) All methods of treatment demand careful watch of the vision, fields and tension, so that progress of the disease may be noted early enough for effective surgical intervention.

In conclusion: it is my sincere belief that it will be the internist, and not the ophthalmologist, who may in the near future discover the cause of glaucoma.

THE CHOICE OF OPERATION IN GLAUCOMA

EDGAR S. THOMSON, M.D.,
New York City

No matter what theories one may hold concerning glaucoma and its causation, the vital question that comes up in the treatment of every case, no matter what the type may be, is: how best may the tension of the eye be reduced, permanently, if possible, temporarily, if a permanent result be not possible?

Choice of the especial operation depends largely on the type of glaucoma and the degree to which the tension must be reduced; for it must be remembered that glaucoma, broadly speaking, is not any especial degree of tension but a disproportion between the intra-ocular tension and that intangible but important factor, the resistance of the tissues of the eyeball. We speak of a tension of 20 to 25 mm. (Schiotz) as a normal tension, yet there are many cases in which such a tension is disastrous to vision; mainly the chronic

cases or the acute cases which have become chronic. It is very difficult to generalize, for, as every one knows, each case presents its own peculiar features which influence the choice. Also, we are often influenced by the contraindications in a case. One of the most important contraindications in this connection is the condition of the blood vessels, as tending to cause postoperative hemorrhage. This disturbance may be either general or local. It is general in cases of high blood pressure and arteriosclerosis. It is local in cases that have continued for some period of time; for, increased tension, too long continued, produces lymphatic and nutritional changes in the eyeballs, as well as a certain form of arterial degeneration.

Hemorrhage may be of several varieties. The most fatal is the expulsive hemorrhage from the chorioid which may occur at the time of operation, or within a few hours afterward. When the eyeball is opened and the pressure on the chorioidal vessels is lowered from 20 to 40 mm., or more, the vessels overflow and burst, and the blood comes out with such violence as to carry the retina, vitreous, lens, iris, and even the ciliary body out through the wound. These hemorrhages are not usually dangerous to life, but invariably cause loss of the eye, which must subsequently be enucleated. Undoubtedly the administration of a general anesthetic, through the changes in blood pressure, somewhat increases liability to this accident. It is also much more apt to occur in inflamed eyes than in quiet ones. The higher the tension at the time of operation, the greater the danger. Hemorrhage may also occur from the iris vessels, in much less degree but in quantity enough to cause subsequent loss of the eye. A particularly troublesome form is daily oozing from the iris, which may occur for a week or more after operation and which imposes upon the eye the difficult task of blood-absorption at a time when the energies should be given to healing processes. At times the anterior chamber almost fills with blood, and the peculiar absorption of blood pigment into the cornea may occur; the so-called "hemorrhage into the cornea". This complication, while rather rare, is fatal to vision when it does occur, for a permanent

stain is left behind. Retinal hemorrhages are by no means uncommon in late cases. They are sometimes absorbed without damage to vision, but at other times are so numerous that they destroy the tissue extensively and seriously reduce the vision.

Another complication, much to be found in late cases with marked field contraction, is acute retinal atrophy; or perhaps nerve fiber atrophy, which comes to the same thing. A patient may be operated upon with no obvious complications and with smooth healing, but on testing vision it is found to be several lines worse and the field is found to be considerably smaller. Such a disappointing result is apt to occur in old chronic cases where the field is down to about 20 to 40°. It seems probable that the postoperative hyperemia in the posterior segment is too much for the weakened tissues to endure.

In late cases a partial opacity of the lens, or even complete cataract may follow a technically correct operation. (It is hardly necessary to consider here those cases which occur from the technical error of striking the lens.) In cases which have been allowed to run through a number of attacks, or in late chronic cases, the lymphatic derangement of the lens nutrition is such that in a short time, say a few months after a perfectly successful operation, opacities around the lens periphery begin to appear and nuclear cloudiness supervenes. It must always be remembered that tendency to these complications can be enormously cut down by operating early after onset of the disease, before lymphatic and nutritional changes have occurred. This, unfortunately, one cannot always do, particularly in subacute and chronic forms of glaucoma.

The operation of choice in acute cases is undoubtedly iridectomy, and the discovery of its value in this connection by von Graefe in 1856 must be regarded as one of the greatest contributions to ophthalmic surgery. So much has been written on the technic and complications that it seems best here to touch only on the principal points which influence selection of the operation. Although the question may be considered still under discussion, it seems almost certain that the value of an

iridectomy is due to the fact that the filtration angle is opened. This is strongly suggested by the failure of those operations in which the filtration angle is not, or cannot be, opened; through a too far forward incision, which leaves a short flap of iris which falls into the filtration angle, or an old case where the iris is already adherent at the periphery. Iridectomy also fails where an attack of iritis follows the operation and fills with plastic material the filtration angle at the base of the coloboma. The important points, therefore, are: to make a clean keratome incision about 1.5 mm. back of the limbus, which should enter the anterior chamber as closely as possible to the root of the iris. (This incision is considerably larger and more ragged when done with a Graefe knife.) The iris is then drawn out and cut off as close as possible to the root attachment, so as to leave no flap to seal over the filtration angle. The angles of the wound are then freed from any tags of iris. This is most important. If the iris is pinched in the wound, it is more apt to become inflamed, and if a tag lies under the conjunctiva it can readily form a "leading string" by which infection can enter the interior of the globe.

A correctly done iridectomy drops the tension to 20 to 25 mm. of mercury—as a rule, nearer 20 than 25—and if the optic nerve has not been damaged this is usually sufficient. If the nerve is cupped, its resistance is much lowered and the tension must be dropped considerably below normal if the atrophy is to be arrested. Iridectomy, therefore, is the best operation for the acute or subacute cases, where the tension is over 30 mm. and in which no cupping of the nerve exists, or at least very little. It is best done in the interval between attacks, as soon as possible after the diagnosis has been made. On account of the cutting of the large iris vessels, hemorrhage is more apt to occur in iridectomy than in any other eye operation. It is much safer to operate when the attack is over and the tension is normal or nearly so. If operation be done during an attack, the congestion of the eye and the contrast between a tension of 40 or 60 and the negative tension when the globe is opened are both predisposing factors in causing hem-

orrhage. A very bad state of blood pressure or arteriosclerosis may absolutely contraindicate iridectomy. On the other hand, a correctly done iridectomy in an eye which has not had enough tension attacks to damage the eye, offers very little surgical risk. Poor healing, hemorrhage, and secondary iritis are all much more apt to occur in the late cases.

It has long been observed that iridectomy has very little effect on chronic glaucoma and that after its performance, even though no increase of tension could be demonstrated, the wasting of the nerve continued until total blindness was reached. It has also been observed that in cases where the wound healed imperfectly and a "cystoid" or filtering cicatrix was formed, the tension was better controlled and vision was better retained. Accordingly, attempts were made in various ways to secure a filtering cicatrix. This was accomplished by Lagrange in 1906, and by Elliott a year or so later. The real reasons for the value of the procedure were formulated by Elliott in describing his sclerocorneal trephine. While iridectomy reduces the tension to 20-25, or normal, the trephine operation reduces it to 10-12, and keeps it there for a period of a number of months. It is therefore of particular value in the chronic or "simplex" cases where the nerve has become cupped in the presence of a tension of 20 mm. or in the more acute cases which have lasted so long that the nerve has become deeply cupped.

The Elliott trephine operation accomplished the desired result better than any other procedure. A flap of conjunctival and subconjunctival tissue is dissected down to, and a little within, the corneal limbus, and a 1.5 mm. or 2 mm. disc is removed. The iris is withdrawn and cut away in the vicinity of the opening, so that by no possibility may it be caught in the opening. It does not greatly matter whether or not the coloboma extends entirely into the pupil. The aqueous is thus allowed to escape into the subconjunctival tissues and the tension is reduced to 10 or 12 mm., where it remains for some months or perhaps even years. At times the tension rises to 15 or 16, but this only happens after 10 or 12 months, or more, and by this time a definite effort at tissue repair can often be

seen in the cupped nerve. The clinical fact of importance is that the vision and field often remain as they were for years and no further deterioration takes place.

The Lagrange operation is also a valuable operation in chronic cases but not, in my opinion, as valuable as the trephine. It is done by making a long oblique flap of sclera with a Graefe knife and then, with curved scissors, cutting off part of the flap. This leaves a gap in the sclera which does not, however, run into the anterior chamber. Filtration depends on whether or not the lips of the scleral flap stay open. The area of contact is small and they often do stay apart for some time, but when we consider that the only thing that keeps the channel open is the flow of aqueous, it seems on the face of it much more precarious than the trephine. It becomes one who has not had a wide experience with the Lagrange to speak with a certain reserve on the question of results. However, in several instances I have seen the Lagrange wound close up, while closure of a trephine operation is rare, and practically always depends on inflammatory reaction.

The so-called infection of the trephine opening is perhaps the severest disadvantage of the operation. It may occur at any time after establishment of the filtering spot—say a month to years after the operation. Without warning, a low form of conjunctivitis sets in, with scanty discharge, and a rather profuse amount of flocculent yellowish precipitate appears inside the bleb. Prompt treatment with vaccines, ice, rest in bed, local antiseptics, etc., usually clears up the attack and leaves some filling of the bleb, but no increase of tension. The nature of the process is still in doubt, but so far an active infection has not been proved, and it is certainly an unheard of thing for a true intra-ocular infection to stop short. At the same time, the occurrence of these attacks makes it very important that the iris should be kept clear of the trephine opening.

Numerous other operations for the establishment of a cystoid cicatrix have come and gone. One of the most popular is iridotaxis, which was advocated by Borthen in 1911, being somewhat similar to an operation by

Holth (Ann. d'Oculist, May, 1907). In this operation, an incision is made as for an iridectomy under a large conjunctival flap, and the iris is dragged out through the incision and left incarcerated beneath the conjunctiva. Good results have been reported, and no doubt have occurred, but when one has seen infection through the conjunctiva of an incarcerated iris, under other conditions, one is not likely to risk this complication in the operation, even though it may not occur frequently.

Heine, in 1905, reported an operation based on a different idea, which he called "cyclo-dialysis". An incision is made about 5 mm. back of the limbus, which divides the scleral tissues and opens the space between the sclera and the tail of the ciliary body. A spatula is inserted into this opening and gently pushed forward until it enters the anterior chamber, which it does by tearing away the attachment of the ciliary muscle to the sclera. Lateral movements of the spatula can enlarge the opening. This procedure opens the filtration angle and connects the anterior chamber with the suprachoroidal space, though the exact therapeutic value of the latter is open to doubt. The operation has never come into very general use and it is doubtful if it is efficient in chronic cases. However, it is to be thought of in cases of markedly increased tension where hemorrhage is to be feared. I have seen good results in several such cases. As no uveal tissue is cut, hemorrhage is much less likely to occur than in other types of operation.

Posterior sclerotomy is a simple procedure and one which is of value in absolute glaucoma where the filtration angle is completely occluded. A longitudinal incision is made about 4 to 5 mm. long, beginning short of the equator. This allows the escape of serous fluid from the vitreous and in many instances enables one to retain an eye which would otherwise give constant pain. If the incision is made longitudinally through the chorioid, the danger of hemorrhage is not great.

Anterior sclerotomy was at one time (1867) advocated by de Wecker for all forms of glaucoma. An incision was made through the

sclera just anterior to the iris root, and a counter puncture made as if for a cataract section. The scleral wounds were supposed not to heal but to leave a filtering scar. The microscope soon showed that they did heal and that the reduction of tension was but temporary. However, this temporary reduction through a relatively simple procedure is often of great value, especially in cases where hemorrhage is to be feared. An anterior sclerotomy is done, and the tension reduced to normal. The following day an iridectomy is done, and the danger of operating during the acute attack is thereby avoided. The operation is used in the same way as paracentesis of the cornea, but has the advantage of not going through corneal tissue.

Finally, it seems best to say that in view of the excellent results gained by the filtering cicatrix operation in chronic glaucoma, practically every case should be operated upon unless there are definite contraindications or unless the case is seen too late. There is no longer any question as to the advisability of the miotic treatment in the chronic cases. There never has been in the acute ones.

DISCUSSION

Dr. Charles Littwin (Englewood): I just want to ask Dr. Harley one question. He mentioned that 0.4 c.c. of solution injected into the eye raised the tension between 40 and 50 millimeters. If that is the case, how does he account for the fact that in some cases with an intra-ocular hemorrhage either by blow or otherwise, there is no increase in tension? Also, in cases of hypopyon there is not an appreciable increase in tension, but surely there is more than 0.4 c.c. added to the contents.

I want to take this opportunity to report the iridotaxis operation that we have been doing at St. Luke's Hospital in New York. The past 2 years we have had at least 30 cases and so far they have all produced the desired result, that is decreased tension.

In some cases there has been no increase in vision but the tension has been decreased and remained so. The reason we adopted the iridotaxis is, first of all, on account of its simplicity. It is a good deal more simple than the Elliott trephining, and the second point is that the flap has to be made very high and we close it with what we call a water-tight suture, that is one continuous suture round and round the conjunctival opening, to prevent any infection later on.

Dr. E. S. Sherman (Newark): These excellent papers on a condition which is one of the most troublesome that ophthalmologists have to deal with, should not go without some discussion. I enjoyed Dr. Harley's paper very much but I am not prepared to discuss it. There are a few things that occurred to me in regard to the treatment of

glaucoma, both non-operative and operative, which I would like to mention briefly.

In the first place, I have been impressed more and more in the last few years with the effect of abnormalities of the general health as causes of glaucoma. This is nothing new. Dr. Risley once said, "Glaucoma is a very rare thing in one in good bodily health". Elliott refers repeatedly in his book to focal infection, auto-intoxication, as he calls it, as a cause of glaucoma. I recently saw a rather striking illustration of the rôle played by focal infection in glaucoma. A teacher in her early forties was referred to me by a very good ophthalmologist in a distant city for treatment and observation of her eyes. He had made a diagnosis of simple glaucoma. I agreed with him. Her tension was elevated moderately, about 35 or 40 most of the time in both eyes. The vision was practically normal, very slight reduction of the fields, and very little if any change in the optic disc. She had persistent hypertension. Operation had been considered before she came to me. After watching her 2-3 weeks, I was in doubt whether to advise an operation. She had been treated with miotics, but the tension did not come down. I then discovered that she had 1 or 2 suspicious teeth. Immediately after removal of the infected teeth, the tension came down and has remained down for a period of a year—came down to normal. I saw her within a week, and her tension in each eye was about 16. One case of that kind doesn't prove anything, but it is certainly suggestive, and I haven't seen it referred to very much in the literature, but Elliott does refer time and time again in his book to the possible influence of auto-intoxication, not only from dental infection but from tonsils and the intestinal tract.

He and deWecker insist so emphatically on early operations. I have been impressed with the wisdom of that teaching in watching acute glaucomas. If I get an acute glaucoma, my practice has been immediately to use miotics and other suitable treatment, hot compresses for 24 hours, and in a great many cases—I mean a considerable proportion of the cases—that treatment is effective. The pupil contracts, tension goes down, pain disappears and the eye becomes in such a condition that we can safely carry it along for a few days until a more favorable time is reached for operation, or possibly do away with the operation entirely. But I believe it is absolutely fatal to postpone an operation on a case of acute glaucoma for very long, that is, for more than 2 days. If you get no effect from miotic treatment within 48 hours at the most, usually in 24 hours, I think the patient should be operated on.

This is one of the most difficult operations, in ophthalmology, to do a satisfactory iridectomy in acute glaucoma. I prefer always to do it under local anesthesia if possible. Of course this has to be reinforced with morphin, or hyacin, hypodermically, but in the majority of cases I believe the operation can be done under local anesthesia, and there is no doubt it is safer, particularly as to the risk of intra-ocular hemorrhage.

In regard to the treatment of chronic glaucoma, my practice has been to postpone operation, if I get the cases early, as long as they can be held in check with miotics. In using eserine I try to use as weak a solution as will keep the pupil contracted. I prescribe it in small quantities and try to keep it sterile. I believe by doing that we have had very little conjunctivitis. The conjunctivitis and irritation from eserine which is so often complained of, I believe is due to old, stale, infected solutions. I have had very little trouble of that kind. I have had patients on miotics for years.

One has been on miotics for somewhere between 12 and 15 years, with only 1 or 2 slight outbreaks of conjunctivitis in that time.

It is a great responsibility where a patient comes with one blind eye and simple glaucoma in the other eye, to advise an operation. It certainly is a large risk in the hands of any man. It requires courage to operate and in elderly people where the expectation of life is not very great I think that the wiser course, unless the case is positively progressing, is to rely on non-operative treatment. However, we know the inevitable result of these cases if they do progress, and the only thing to do is to advise the patient accordingly. My practice is to have them come as frequently as I think necessary, usually once a month. Sometimes if they are doing well, at longer intervals, and watch particularly the field, the tension, and the vision, in the order named. If the case is held in check in these particulars, I am satisfied to go on year after year if necessary with non-operative treatment.

deWecker once said (one of these half truths which is sometimes misleading), you may recall, "If miotics never cured a case, they have certainly kept a great many cases from being cured". Well, operations don't cure glaucoma either, except acute glaucoma; they hold it in check, the same as miotics certainly do in some cases.

Dr. Wells P. Eagleton (Newark): I wasn't present to hear Dr. Harley's paper because I wanted to hear Dr. Hall, and one reason I came back was to hear this paper on glaucoma but I missed it. He gave this summary, which tremendously impressed me: "The tissues of the eyeball are looked upon as living protein colloids. The entire uveal tract is considered as an osmotic system. The vorticeous veins are looked upon as the chief drainage of this osmotic system: Schlemm's canal being an auxiliary for the anterior segment. The colloid structures swell as a result of the abnormal chemical reaction of the body fluids conveyed by way of the blood stream. That the structures of the eyeball must be considered in closer relation to each other than has been done in the past, and the eye in closer relation to the health or ill health of the body. An attempt is made to outline a few of the difficulties to be overcome."

I think the future of glaucoma is going to be in understanding the circulation of the eye and treating it through the circulation. I base it on these observations, and they are entirely those in general surgery: Years ago, I ligated a common carotid which had nothing to do with the eye. In feeling of the eye 2 or 3 days afterward, I found that the tension of that side was tremendously reduced; and as a result of tying at least — well I was going to say 25 (I am sure that is well within the limit) common carotids, I say that is invariably so. If you tie a common carotid, you reduce the tension of the homolateral eye by at least 50%. Very often, and I think it has something to do with the age, you may reduce the tension of the contralateral eye. Why? I think we all agree that the cerebrospinal fluid circulation, the fluid itself, comes from the choroid plexus, which is just a mesh of blood vessels the same as the uveal tract. There are no glands to secrete any fluid. There is a mechanism whereby everything is taken out of the circulation excepting certain things that it lets through.

The second observation—I had a woman who came to me with one eye out and the other eye coming out. This eye was suppurating from an exophthalmic goiter without any signs of exophthalmus. She had a blood pressure of something

like 240 for a long time. I had a large number of people see her and one day, feeling of her tension, I found that she had glaucoma in the one remaining eye. We tied her common carotid, after consulting with Dr. Haggerty and Dr. John Rogers and a large number of men who were interested in thyroid work. They decided not to touch her thyroid and I tied her common carotid. It had no influence on the glaucoma. Here was a different condition. It was a diseased condition. Normally, if you tie the common carotid, the tension will come down, but in a condition in which it was a disease of the secretion, tying the common carotid had no influence.

Another observation—I had a man from Jersey City, one of you fellows asked me to see him, who had a sinus thrombosis. He went totally blind in both eyes and when you looked into his eyes (he had a high temperature) you saw a whiteness from the veins; apparently, we thought, it must be from his veins being filled and stopping the circulation through the arteries, because they didn't look the typical picture that you see in venous congestion. We enucleated one of his eyes and tied his common carotid, and while we were looking at him, the exophthalmus and the chemosis disappeared and the man saw. Now what does it all mean? It means that the fundamental reason for glaucoma is some disturbance of the circulatory system.

Dr. Edgar S. Thomson (New York): I have greatly enjoyed hearing these 3 very interesting papers and also the discussion. There are just a few points I would like to bring out. In the first place as to iridodiasis, I am perfectly willing to admit that I have a prejudice against it because infection goes rather easily through the conjunctiva and the iris once involved, infection spreads very rapidly. I have seen a number of cases of wound where that very thing has happened. A tag of iris is left out under the conjunctiva and later on infection penetrates and extends back into the interior of the eye.

I think you must remember in glaucoma that it is very difficult to generalize unless you have a very large series of cases. That was of course the great advantage of Elliott's work. Elliott had a series of 500 cases when he wrote his first paper. No doubt iridodiasis can be done and gives you a filtration cicatrix in quite a number of cases without trouble, but I am convinced that here and there, if one does it, he will strike infection.

Dr. Sherman brought up a very interesting point. He spoke of general conditions causing glaucoma. I spoke rather broadly of the desirability of operating early, but very many times we get atypical cases of glaucoma which are not primary glaucoma at all, but which are very low grade cases of cyclitis. They begin from a sinus, from a digestive disturbance, from various internal chemical disorders. You have a short period of inflammatory reaction, and then the inflammatory picture disappears, and to all intents and purposes that case looks like primary glaucoma. I had a case of that sort which illustrates my meaning very well. There is never much trouble about the diagnosis of chronic forms because you have the cupped nerve with the contraction of your field and all that. But in your primary acute cases, you have the attack coming on late in the day; after emotional stress you have a period of prodromal attacks. I am never in quite so much a hurry to operate unless I have a perfectly typical onset. If you have typical onsets, then you know perfectly well that you have a primary

glaucoma that is going to go on and you are going to lose ground the longer you wait. Well, this gentleman came to me in great distress. He was an oculist, too, by the way, and he said he had been working in his office at 10 a. m. when he had noticed halos. I said, "That is a strange time for you to get up an attack of glaucoma. Were you worried or under any stress or feeling badly?"

"No", he said, "I never felt better in my life."

"Well", I said, "we had better watch you for a day or two."

His tension was slightly up, about 30 (Schiotz). In a few days precipitates appeared on the posterior surface of his cornea and his iris changed color slightly. After a good deal of fussing with him I finally got his digestion straightened out. His tension went down and stayed down. That was a secondary glaucoma, not primary at all. You have to make up your mind, of course, before you operate on a case like that. I think you have to get these cases early. If they once establish a glaucoma habit, then you have to all intents and purposes a true glaucoma.

There are, no doubt, many cases where operation isn't available and then you can use your miotics, but it is playing a losing game to use them, in my opinion. If you use miotics, you must make up your mind that vision will gradually slip away, because the tension curve is undoubtedly different at different times of the day. We see the patient once a day, perhaps the tension is down, but with various emotional and circulatory changes during the day a tension curve will go up and down a good deal like a blood pressure curve, so that we lose ground a little.

Of course, in old age you have to consider the rate of progress of your chronic process and whether the patient is likely to live longer, and then of course in old age you frequently have very material contraindications. I have a good many cases under miotic treatment, but they are always cases in which I didn't feel that it was advisable to operate.

With regard to the trephining curing these chronic cases—of course "cure" is rather a bad word I think, but at the same time I have a good many trephines 20 years old, and there is no question that it holds them wonderfully, cases that have not failed in the slightest and where the field has been partially contracted, and remains the same. So that to all intents and purposes it comes pretty near curing them.

Also when you drop the tension to 10 or 12 mm. Hg., which is what the trephine does, the regeneration of the nerve is a very interesting thing. I have one very marked case of that now. He was operated on 5 years ago, at the very earliest bit of contraction of his field. His tension was about 30, but he had a cup, and on account of the fact that he had a cup, I advised trephining rather than iridectomy. The whole appearance of that nerve is gradually changing. It is filling in a little bit with connective tissue. The vision is still 20/15 and his field has only this very small contraction that it had in the first place.

Dr. Eagleton, of course, has brought out a very interesting subject. That same subject was dealt with a good deal some years ago in a little different way. I think he is right. But that was brought out in the excision of the superior cervical sympathetic, which for a time dropped the tension markedly, but as conditions gradually readjusted the tension went up again in many of those cases. I saw a number of them.

So we have this curious thing called the glaucoma habit, where an eye has had attacks of ten-

sion, every attack of tension leading to more, and that influences us very decidedly in what we decide to do. I don't care what your tension comes from, even in these inflammatory cases, if it has been established for quite a time, you are going to have a progressive condition, unless you stop it surgically.

Chairman Emerson: A point which I think all of us know and realize who do any hospital work, but which has not been stressed, is that a patient's intelligence and his social status have a great deal to do with whether you are going to treat him with miotics or operate. In a clinic and with unintelligent patients who wander about and who won't cooperate and who do not come back, and whom you see once and then see them 4 months later with marked progress, and who do not carry out their treatment, it is certainly much wiser to adopt some operative procedure than to hope to hold them with miotics. I think that is a very important point.

Dr. H. L. Harley (Atlantic City): I am sorry Dr. Eagleton did not hear the whole of my paper. His wide experience has brought him to the fundamental conclusions that I have tried to express. I hope I have in him an advocate for what I think to be a reasonable, though intricate and far reaching, theory.

In answer to the doctor who asked about the small quantity of fluid that it took to raise the tension, it was not 0.4 but 0.04 c.c. I myself cannot think in c.c.'s and fractions of c.c.'s, so I said it was three-fifths of a drop, to bring to your attention how little it takes added to the contents of the eyeball to raise the pressure.

The answer to why for instance an intra-ocular hemorrhage does not raise tension markedly: I think there is a compensating mechanism in the case of hypopyon where there is probably a lessened quantity of aqueous humor for the time being. The amount of white cells or whatever makes up the hypopyon pushes a certain amount of aqueous out for the time being through the filters of the capillary wall. An intra-ocular hemorrhage of any size does raise tension. The one that you see at the macula, for instance, which may look like a pretty big gob of blood to you with the ophthalmoscope, but remember that you are seeing it magnified 15 or more times with your instrument so that 1 drop of blood makes a pretty good sized smear in the eyeground, especially if it happens to be between the vitreous and the retina. Whether or not the tension is always raised I do not know. I must confess I don't always take the tension in every eye I see.

I am tremendously interested in this because all of medicine has been turned upside down in the last 15 or 20 years, and I think it is going to be turned inside out in the next 15 years. Many departments of medicine, urology, brain surgery, are being treated along the lines of water absorption you know; they are limiting the intake in relation to the output of water, here in our hospital, in all brain injuries. The basis of this is in colloid chemistry. They are thinking in terms of colloid chemistry whether they say so or not.

In response to what Dr. Sherman said about abnormalities of health, my idea is to go still further into it and tabulate some of those things. What are those things that give us an abnormal reaction of blood plasma or what not that damages the filters of the eye vessels to raise the tension?

Dr. Chatten, that glaucosan business is very interesting. To class a drug which dilates the pupil as a miotic is rather odd, isn't it? I am not criticizing you, but I am talking about Hamburger.

My answer to that is that it influences the filters again. You open up the filtration spaces in your blood vessels with the action of the adrenalin substance and temporarily you get an opening up of the filters and a lessening of tension in spite of the fact that you get a further dilatation of the pupil. Another interesting thing is that both the cerebrospinal fluid and the aqueous are dialysates of capillary blood. They contain identically (the cerebrospinal fluid and the aqueous) what the blood serum does except those molecules too large to get through the filter wall. The large particles are held inside the blood vessels, the smaller particles which are capable of dialyzing go through the filter.

There are a tremendous number of factors involved in this question, and it would take a text-book to answer them all; not that I have all the answers, but it would take a text-book to answer them all, let alone a 30 minute paper.

A VISIT TO THE CLINIC OF DR. LORENZ BÖHLER

H. L. WENGER, M.D.,
Paterson, N. J.

In the Vienna Accident Hospital the bulk of work is care of fractures, with an occasional internal complication. Methods employed in the treatment of certain important fractures are rather striking, not only in their apparent simplicity of application but in the results obtained. We were taught to use general anesthesia for fractures with malposition. This clinic uses local anesthesia exclusively for all fractures.

Since it is impossible to consider the various fractures, I shall limit myself to giving the general principles employed, and to one rather detailed illustration. Following are the methods of handling simple and compound fractures.

The skin, which is not shaved, is painted with tincture of iodine. Under careful sterile precautions, 2% novocain, with or without adrenalin, is injected directly into the site of fracture, even if the fracture extends into a joint. The greater the dislocation and the hematoma, the quicker the anesthesia spreads. In dislocations the injections are made directly into the joints, i. e., into the hip, knee, elbow, fingers, or shoulder. Anesthesia not only takes place almost immediately, but usually lasts several hours, and the advantage is obvious. It allows time for an x-ray re-

port after reduction, and if this be unsatisfactory, manipulation can be repeated as many as 4 times without further anesthesia. Injection of the anesthetic rarely causes pain, and in those cases in which it does, the pain is transient, because it is rapidly followed by anesthesia with muscular relaxation. In dressing the part, padding is not used, because it packs together, preventing good immobilization.

A point brought out by Dr. Böhler's method of immobilization is that function is impaired to a minimum, thus preventing stiffness of the joints and atrophy of the bone and muscle. Incidentally, there is quicker healing.

In compound fractures débridement and thorough cleansing are performed. The area is then painted with iodine and the skin sutured. It is important to note that there is no drainage. A cast is applied with the usual omission of padding, but a window is left in the cast. To prevent edema and gangrene at the edge of the window, it is essential to see that the plaster edges do not press into the tissues. If the wound be too extensive to apply immobilization by cast with window, extension is applied till the soft parts have healed and that is followed by the plaster immobilization described in the preceding paragraph.

To illustrate the treatment of fractures, I shall give in detail the procedure in a simple fracture of the ankle. An adult patient was brought in with a fracture of the right ankle. There was displacement. Immediately following admission the patient was placed on the operating table. The area of fracture was prepared in the routine manner described above, and 20 c.c. of 2% novocain was injected into the hematoma. The foot was markedly swollen. By means of massage, the edema and hematoma were reduced until both malleoli were distinctly palpable. Then the patient was placed in a sitting position on the table, holding his leg in flexion at about 45°, with the head of the fifth metatarsal resting on the knee of the operator seated on a stool at the foot of the table. The purpose of this is to obtain pronation of the forefoot. While the surgeon reduces the deformity, an assistant prepares a posterior plaster splint. This is applied at the back of the leg and under

the sole of the foot to the tip of the toes, and is molded to fit. The folds at the heel are cut and the resulting leaves molded to fit. While waiting for this to set (a period of about 5 minutes), the surgeon presses the malleoli tightly together. The heel is held in a position between pronation and supination, and the forefoot in slight pronation (not in supination). In order to accomplish this, the patient is directed to press the fifth metatarsal bone on the knee of the operator, which posi-



Author's Case—Appearance of foot after application of cast and iron walking-heel.

tion raises the fifth metatarsal and thus lowers the first.

The leg is then covered by 3 circular bandages, leaving only the extensor surfaces of the toes free. The plantar surface is completely covered. After each circular bandage, the operator presses the malleoli forcibly together to be sure that lateral subluxation is corrected, and pressure is maintained till the plaster is firmly set. A radiograph is taken and if there be the *slightest* displacement, the cast is removed and the fracture reset, and similar plaster bandages applied again. Dr.

Böhler emphasizes that if even a little lateral deviation of the ankle joint be present, "the joint is no longer congruent" and the patient may become subject to arthritis deformans.

After satisfactory reduction has been accomplished, an iron walking heel, or stirrup, is attached to the cast; this consists of an iron rod 20 x 3 in., and $\frac{1}{8}$ in. thick. At each end of this a similar bar, except that this bar is 4 in. long, is riveted. This letter "I" is bent into an "U" shape. When applied to



Same Patient—Able to walk approximately 2 hours after sustaining Pott's fracture.

the cast, the bend of the "U" protrudes 1 in. to $1\frac{1}{2}$ in. below the heel. The limbs of the "U" are adapted to the outline of the malleoli. The 2 cross pieces are bent to curve with the cast. This walking iron must be in the axis of the leg. The stirrup is held in place by means of plaster bandages. About 15 minutes is allowed for this to dry and harden. The patient is able to walk immediately. The cast is removed in about 6 weeks.

The result is excellent union, with about a 75% movable joint, and absolutely no atrophy is demonstrable when the injured ankle is compared with the other side.

After removal of the cast the patient is given an arch support and an Unna bandage for an indefinite time. Massage is unnecessary, since the ankle is mobile within a few days and there is no atrophy.

The following paragraph is quoted from Böhler's treatise on fractures: "In order to avoid flat foot, most text-books advise that one should place the forefoot in strong supination or varus position. Such immobilization, however, will produce flat foot instead of avoiding it, because flat foot is a supination contracture of the forefoot and not a pronation contracture. Therefore, we can avoid flat foot only if we pronate the foot with the heel in mid-position and in such a manner that when the patient is standing, the heads of the first and fifth metatarsal bones touch the floor. We must not forget, in addition to what has been expounded, that in fractures of the ankle pronation and abduction take place in the tibio-astragaloid joint, which normally has only the possibility of dorsal and plantar flexion. The movements of rotation in the normal foot take place in the lower and anterior articulations of the ankle joint and also in the tarso-astragalo-calcaneous and tarso-metatarsal joints. It is now quite evident that if the forefoot is brought into supination, it will be quite impossible with this manouever only to correct the pronation in the upper articulation of the ankle joint. The lateral displacements of the ankle joint can disappear only after pressing together the separated malleoli."

The very fact that methods of handling various fractures are so numerous is sufficient evidence that these methods are unsatisfactory. Dr. Böhler has paved the way for those who are willing to serve an apprenticeship, which apprenticeship is necessary since his methods are too intricate to be adopted without careful investigation and study. Before reaching this goal, Dr. Böhler himself has had to challenge the prejudices of his confrères with his radical innovations.

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PUBLICATION COMMITTEE

HENRY C. BARKHORN, M.D., Chairman, 45 Johnson Avenue, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

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DEFENSE AND INDEMNITY INSURANCE

False rumors to the effect that the state society has abandoned group insurance lead us to make an emphatic denial and to direct the attention of members to the published proceedings of that session of the House of Delegates at which such protective insurance was discussed. We can only guess that the rumor was based upon the action whereby the old form of society defense of its members—without indemnity—was definitely withdrawn. For a number of years the state society had stood ready to assist any member (under suit for malpractice) whose defense had approval of the Judicial Council, to the extent of \$250 for legal expenses. Experience having proved that the group plan of insurance, whereby both adequate defense and indemnity (in the event of damages being awarded the complainant) are assured, is more satisfactory, the society decided at the annual meeting in 1929 to withdraw the old standing offer. At the recent annual meeting, June 1930, the Essex County Delegates presented a request that the question be reconsidered and that the old plan be restored. The motion to effect this change was voted down by a large majority. The discussion is presented in full in the Trans-

actions, Supplement to the September Journal, pages 25-27, and every member should read at least the committee report presented by Dr. Beling.

As the matter now stands, members have no specific defense by the society as an organization, but they have the inestimable privilege of securing at exceptionally low rates a form of defense and insurance backed and supported by the state society and by a financially responsible company. In these days of trumped-up suits—the racketeering of physicians and surgeons—it is unsafe for any practitioner to be without insurance, and with reliable protection offered at such low rates as the society has obtained for its members it would seem that no physician can afford not to insure himself. As Dr. Morrison well expressed it: "I would not lie awake 1 night worrying over the possibility of a suit, for all it costs annually to carry such insurance." Aside from the danger of unjustifiable malpractice suits, let us say to any member who has not yet had the experience of finding himself quite innocently projected into a serious legal and financial dilemma, that he may well read and ponder upon the letter of one of our respected confrères published on page 476 of the May Journal. A sound medical practice

insurance policy is surely a comforting possession.

In the committee report referred to above you will find specific information regarding cost of policies in varying amounts of protection afforded. State society officials—particularly Drs. Beling and Morrison—have rendered you excellent service in securing for the Medical Society of New Jersey the most favorable terms given to any physicians and surgeons anywhere. Show your appreciation of their efforts in your behalf by accepting what is offered, by taking advantage of these opportunities to safe-guard your personal interests.

There is a remarkable difference in the way this opportunity has been accepted in different parts of the state. In Warren County, for instance, every member of the county society is insured; a banner record of 100%. In Union County, 97% of the membership is insured; certainly a very creditable record. Both counties named show wide-awake appreciation of an important economic situation and of the available protection. Other counties trail off from 81% in Bergen and Burlington Counties to as low as 25% in Sussex. We respectfully suggest to the presidents and secretaries of county societies that they urge their members to consider this question, and recommend that they subscribe to the group insurance.

HISTORY OF MEDICINE IN NEW JERSEY

In the February Journal, editorial section, announcement was made that an historian had been engaged to collect material for and to write the history of medicine in this state. We again mention this matter, that you may keep in mind the fact that such a history is in process of writing and to inform you regarding its progress to date. Some day you will be given the opportunity to purchase this volume of historic data in which every New Jersey physician will feel a degree of pride. We are not ready yet to prophesy when it will

make its appearance in book form nor to say what it will cost but we can testify to the fact that satisfactory progress has been made and that the material so far collected gives promise of conversion into a very interesting document.

Besides requesting that you save your pennies for subscription to the history at the proper time, we desire now to invite you to contribute any information you may have that would be appropriate for use in developing such a history. We wish to record every important medical event that has happened in this territory now known as New Jersey. If you possess any old records that might prove helpful, or if you know the whereabouts of any records of that character, please communicate with the Editor, and he will arrange for a conference with the historian.

May we indicate the kind of material desired by explaining that there must be a great many facts, of historic import, not attainable by mere searching of libraries and the records of historical societies. Some of the sources from which we anticipated great finds have yielded very little; some sources from which we expected little have been prolific in contribution; some of the best material discovered has been found almost accidentally. We would like each of you to supply material—written or verbal—from your own collection of “memoirs”, “heirloom stuff”, diaries or letters—anything that records facts of value to this history, or that gives a clue to the location of records that should be consulted. Among the points of chief interest, and upon which we would like to have enlightenment, are records concerning the commencement of movements for the improvement of the state of medicine in New Jersey, which led to discoveries by New Jersey physicians in advance of others, or to legislation or public health advancement. Not a few of the most important laws of the country, bearing the names of legislators, had their origin in some county medical society. Whenever possible we would like to trace such relationships. Many physicians have played conspicuous parts in civic life, holding high governmental offices in state

or nation, and these facts should be more widely known. Another point to be investigated is the influence that foreign physicians and surgeons may have exerted upon New Jersey medicine, particularly during the French and Indian War and the War of Revolution.

In other words, please send us, or direct our attention to, any facts of history that we might otherwise overlook.

ANNUAL MEETING ORATIONS

In this issue we publish the addressess delivered by Drs. Hall and McBrayer at the Annual Meeting of the Medical Society of New Jersey, in June last—2 of the most vital documents we have ever presented to our readers. Those who were present at the Thursday afternoon session will recall the telling force with which these speeches were delivered and the rapt attention with which they were received. It was to us, at the time, a distinct disappointment that no discussion from the floor developed. Our interpretation was, however, that the topics were covered in such masterful manner by the guest speakers, and the audience was so overwhelmed by the magnitude and the seriousness of the questions involved, that no one had the temerity to start what would probably have been a veritable "talkfest". They presented, indeed, questions too serious for casual discussion; questions that demand thoughtful, if not prayerful, meditation. In print, members will have opportunity to read and study them leisurely and carefully. We earnestly solicit your attention to these papers.

Do not underestimate the importance of this matter, nor lull yourselves to sleep by the complacent notion that we are crying "wolf" when discussing the possible advent, or the progress, of state medicine. That it is really a "burning issue", is evidenced by the fact that during the past year nearly every State Society Journal in the country has published articles thereon or has editorially discussed some aspect of the question. Furthermore,

most of the state societies that held sessions during May or June, and some of those that met in October, had the problem under consideration in some form, and in several instances it formed the principal theme of presidential addresses. We have already spoken (October Journal, p. 795) of the addresses delivered at Detroit by the President and the President-Elect of the American Medical Association, and of the action of that organization's House of Delegates providing for constitution of a Bureau of Medical Economics to deal with this and similar topics. It behooves every member of the profession now to think of these matters and to express his matured opinion as to what action needs to be taken.

In association with the articles referred to we are publishing a paper that we read to the Hudson County Medical Society some months ago, bearing upon the same problem, suggesting that President Harris' plan might be put to trial in this state. There are some counties to which it seems applicable, and where it might be worked to the profit of the profession and the benefit of the public.

During the past 2 years we have reproduced in the Journal a goodly number of literary items concerned with professional economics—some of them quite definitely leaning toward state medicine—with a view to keeping members informed as to happenings within and outside of professional ranks, and to inciting a deeper and more active interest in the solution of such problems. An impartial, unbiased attitude, in the collection, presentation and study of such material, is essential to a proper and complete understanding of the issue, and we contemplate supplying more of such pabulum during coming months, for a perfect avalanche of articles has come to hand. Out of the welter of argument may come some solution of a problem that is of vital import to profession and public alike.

Study of the 3 addresses published herewith will form a reasonable foundation upon which to base your further investigations as to the relation of state medicine to your own practice

Collateral Reading

THE SCIENCES AND PHILOSOPHY

By J. S. Haldane

(Reviewed by the Editor.)

(Before undertaking a review of the above mentioned interesting book, we desire to present a general discourse on books and reading for recreation, abstracted from the May issue of the Journal of the Michigan State Medical Society and written by the Editor of that Journal, Dr. J. H. Dempster.)

"Without books, God is silent, justice dormant, natural science at a stand, philosophy lame, letters dumb, and all things involved in Cimmerian darkness."

—Thomas Bartholin (1672).

Probably to a great many people one of the greatest satisfactions in life comes from the printed page. Articulate speech and recorded thought have done more to advance civilization than any other factor.

"Words are things, and a small drop of ink
Falling like dew upon a thought produces
That which makes thousands
Perhaps millions think."

Reading is in a sense about the only way in which the heir of all ages can enter into his heritage. A long time ago Richard de Bury (1344) wrote concerning books: "These are the masters who instruct us without rods and ferules, without hard words and anger, without clothes or money. If you approach them they are not asleep; if investigating you interrogate them, they conceal nothing; if you mistake them, they never grumble; if you are ignorant, they cannot laugh at you. The library, therefore, of wisdom is more precious than all riches; whosoever, therefore, acknowledges himself to be a zealous follower of truth, of wisdom, of science must of necessity make himself a lover of books."

READING AS RECREATION

A prominent bookseller in Detroit was asked by the writer what class or profession was the best customer of book stores. He replied that doctors as a class were the greatest book buyers and that clergymen and lawyers were about even and a long way behind physicians. This may be construed as a gesture to flatter the writer. Recreation is ordinarily construed to mean renewal of physical strength. There is, however, no greater means of recreation in an intellectual sense than reading. The doctor finds in books the surest relief from the monotony of his daily

grind; reading is like sleep: "A balm to hurt minds, great nature's second course chief nourisher in life's feast." Machiavelli has expressed it admirably: "When evening has arrived I return home and go into my study. I pass into the antique courts of ancient men, where, welcomed lovingly by them, I feed upon the food which is my own, and for which I was born. Here I can speak with them without show, and can ask them the motive of their actions; and they respond to me by virtue of their humanity. For hours together the miseries of life no longer annoy me; I forget every vexation." A well selected library will emancipate the reader from both time and space. Reading, like art, is not only an escape from the monotony of the daily routine but it is an escape into a realm of varied interest.

THE INFLUENCE OF BOOKS

Books have filled such a large place in the life of man that much has been written on their influence. All are so familiar with the attitude of such writers as Ruskin, Carlyle, Emerson, Baker and Cicero, that further quotation is hardly necessary. When one becomes more specific in the matter of reading he inadvertently reveals his own preferences. To read fiction with any great degree of satisfaction one must of necessity read rapidly and that is what a person accustomed to perusing scientific literature seldom does. There are, however, two modern story writers, both, by the way, trained physicians, who are worthy the time and attention of medical readers. Warwick Deeping is a medical graduate of Cambridge University, England. After a few years of practice, part of which was devoted to medical service during the War, Deeping turned his attention to literature with the result that "Sorel and Son" was an immediate success which has been followed by a number of other works of fiction. Francis Brett Young, the author of "My Brother Jonathan" and about a dozen other books, was born in 1884. He is of a family in which there had been 3 generations of doctors. Young was educated for medicine, and practiced 8 years at sea as ship surgeon. He evidently found writing more to his taste, however, and abandoned the practice of medicine for the pen. Both Warwick Deeping and Francis Brett Young in the books mentioned deal more or less with phases of medical life; Deeping in the education and training of Sorel, and Young depicting country practice in England. Both writers have a diction that is as appealing in its interest as the story they tell.

"READ DON QUIXOTE"

But why should a physician necessarily seek medical or near medical subjects for his recreation? John Hunter when asked to recommend reading matter for young men contemplating a medical career, replied, "Read Don Quixote". The advice is good. This great Spanish novel, unrivalled for its invention, is well worth anyone's time. Cervantes is considered to have created the greatest single figure of literature outside the world of Shakespeare. In Don Quixote we find all the aspirations of men with all their delusions and mistakes. A knowledge of Don Quixote implies a knowledge of the Renaissance in Europe. So, John Hunter's advice is worth heeding.

There are a number of biologic works treated in a non-technical manner that will be found of great interest, the works of such biologists as J. S. Haldane, J. Arthur Thompson, E. M. East (of Harvard), Edwin Grant Conklin and Harry Fairfield Osborne. It is a difficult matter, not to say presumptuous, to attempt to prescribe reading matter for another and it is a rare person who can do it effectively. The book browser has his cultivated taste and knows pretty well what he likes. So the writer refrains from recommending specific books.

SCIENCE POPULARIZED

So-called outlines, such as outlines of history, of literature, of science or of philosophy are apt to be unsatisfactory. They possess a certain value to the lay reader only if written by real men of science or specialists, as the case may be, who have the happy faculty of popularizing their work and writing down to the so-called non-professional reader. Many scientists, like Jeans, Haldane, Eddington, Eliot Smith, Bertrand Russell, Jennings and such historians as James Harvey Robinson and James Truslow Adams possess the happy faculty of writing so as to be comprehensible to the average cultured man or woman who does not happen to be specially trained along the line of the particular subject dealt with by these men.

REVIEW

The above references to Professor Haldane reminded us that during vacation period we had read with a great deal of interest his most recent publication on the science and philosophy of life. It is a book that may profitably be read by physicians, but we do not recommend it to members of the Woman's Auxiliary because of its technical character and the fact that the author assumes the reader to possess a greater knowledge of anatomy and

physiology than does the average even well-educated layman. A book of much greater value to the layman, and to members of a physician's family, and which we will review next month, is "Man and His Universe" by Langdon-Davies.

Haldane's book comprises a series of lectures delivered under auspices of the University of Glasgow. The first 10 of the series deal with science; the second group of 10, with philosophy. In the first half he considers biology and the physical sciences in relation to the mechanistic and vitalistic theories of life and the universe; while in the second portion he philosophizes upon psychology and the more abstract sciences, and upon religion, theology and the belief in immortality.

From his discussion of the sciences we extract the following pertinent bits: "The supposed independent soul has turned out to be something which is dependent in every respect on the supposed physical body and environment. We cannot possibly separate their influences. If we start with the provisional assumption that there is a physical or biologic living body, with an independent soul to guide it, the facts lead us inevitably to a correction of this assumption. Body and soul cannot be separated from one another as independent entities. The conception of soul must either include within itself the body and the physical environment, or the conception of body and physical environment must include within itself the phenomena provisionally attributed to interference by the soul.

All around us we see disease and death—facts which, in themselves, we seem unable to interpret from a psychologic standpoint. Disease, crime, death, and birth are matters so familiar to us that the deep mystery which surrounds them is scarcely realized; but their existence ought to serve as a constant reminder to us of the merely partial character of either psychologic or biologic interpretation. We are accustomed to think that since scientific knowledge has cleared up so much that had previously been mysterious, our experience must be much more intelligible to us than it seemed to our forefathers. In so thinking, however, we forget that each scientific advance seems only to throw into clearer relief the mystery which remains. My old philosophic teacher, Professor Campbell Fraser of Edinburgh, used frequently to speak of 'our mysterious life in this mysterious universe'. The advance of scientific knowledge does not seem to make either our universe or our life in it any less mysterious. It appears to me to be little better than unthinkable credulity to believe that the mystery has become less deep through scientific advance. In proportion as we know more

and think more, scientific problems still unsolved seem to define themselves progressively."

Seeking an explanation of life and living processes, in what has been learned through the *exact* sciences, Haldane says:

"Heredity, the way in which a living organism is constantly renewing or replacing its structure, and the fact that structure is suitable to environment, are alike manifestations of life. They are not matters which either require or are susceptible of explanation in physical terms. In other words, they are just Nature—what is. We can observe and investigate their details as manifestations of life; and this is what biology actually does, with signal scientific success and practical advantage. To ask for a physical explanation of them is only blind foolishness."

"I wish to emphasize as strongly as I can that the belief in a merely physical world surrounding us has no basis. Our environment is not something indifferent to our lives, but belongs to them. Surrounding Nature is not an influence outside our lives but within them. From the standpoint of biology, Nature is not merely a healing and beneficent influence within the living body, as Hippocrates first clearly pointed out and every educated doctor takes as axiomatic, but is a healing and beneficent influence in the whole of our environment to the farthest depths of space. The supposed common-sense view to the contrary is only the common ignorance characteristic of the particular times in which we live. The facts of biology were left out of account in the scientific reasoning from which that view originated."

"We seem to find ourselves in presence of a physically interpreted, a biologically interpreted, and a psychologically or spiritually interpreted world, the latter being a world of interest, values, and responsibilities. Each of these interpretations bases itself on our actual experience, and thus lays claim to objective significance. But as regards the experience appealed to we must remember, with Kant, that this is perceived experience. There is nothing else that we can appeal to. We cannot jump out of our skins. Since, however, it is only perceived experience that we can appeal to, the character of perception must in reality enter into even our physically interpreted world, and perception implies that whatever is perceived is so in virtue of coördinated relation, both spatial and temporal, to the rest of experience."

"The conclusion forced upon me in the course of a life devoted to natural science is that the universe as it is assumed to be in physical science is only an idealized world,

while the real universe is the spiritual universe in which spiritual values count for everything.

The apparent individual interests and values in this spiritual world turn out, when we examine them, to be not separable interests, but one interest, with its values organically united with one another in time-relations as well as space relations; and the perception of this is never far off. This perception guides us toward honest, diligent, unselfish, and charitable conduct, and is the motive impulse of all that we regard best in our actions. It gives us width of intellectual vision, courage to act, courage to endure, inspiration to carry forward what we have inherited from those before us, and charity. We live, if we only realize it, in the presence of and through the power of, this spiritual reality. It is the inspiration of all the splendid and painstaking effort which has built up our language, our literature and art, our science, our institutions, our machinery of all sort, our loyalty to one another and all that we call civilization."

"The argument of these lectures is that the physical world is not the real world, but only an ideal and quite insufficient representation of it. The real world is the spiritual world of values, and these values are in ultimate analysis nothing but the manifestation of the Supreme Spiritual Reality called, in the language of religion, God. What we interpret as physically determined is only what is imperfectly seen. Our faith that this is so is firmly grounded, so that we can walk through the valley of the shadow of death without fear. Death of the individual is no extinction of values, and no injustice. If he had a real and practical faith in God he needs no compensation in a future life; and if he had not faith in God, but had been snatching at the illusion of his own individual interests, he has already during his life paid the penalty. We are accustomed to lament over the grave of a good man, but we might with better reason rejoice over the manifestation of God in his life: for our lamentations are a bowing down before materialism. In showing, however, our practical sympathy with those who have been left alone, we can best help them to realize God's continued presence to them, so that they can face their loss bravely."

"I think there can be no doubt that scientific men as a body will continue to oppose religious beliefs in so far as these beliefs are associated with any element of what is known as the supernatural; and it may be long before the supernatural element is eliminated from religion as represented by the churches.

I can, however, see no final obstacle to this elimination. * * * Science, it is true, is constantly attacking theologic accompaniments of religion; but these attacks, when rightly understood, are not on religion itself, but on what only obscures religion and prevents its appeal to mankind from being effective. We must not confuse religion with all that is taught in churches or embodied in creeds and religious ceremonies. What the sciences can rightfully ask for from the church is that its creed should be so amended as not to exclude those who, while accepting the great truths of religion, are unable to accept supernatural beliefs. * * * The present widespread belief that religion will die out as science advances is nothing but evidence of intellectual blindness. Existing churches will decay if they do not amend their creeds; but religion will no more die out than science will, or philosophy will. Religion and philosophy are in reality one thing, which is just as indispensable as science is."

Economics

MEDICINE AND THE CHANGING ORDER

Henry S. Houghton, M.D.,

Dean of the University of Iowa Medical College

(In the May Journal, we republished in the Department of Collateral Reading an article by Edward A. Filene, dealing with group practice as it might be conducted on a business-like basis. Dr. Houghton refers to that essay, originally published in the Survey-Graphic, and to Dr. Ray Lyman Wilbur's statement concerning plans of the Committee on High Cost of Medical Care. The following abstract of Dr. Houghton's paper is made from his article in the Iowa Medical Society Journal of March, 1930.)

It is time, I think we can admit, to ask what is wrong, if anything, with medicine. It is time to recognize that if a re-study of our ideas and methods is not made promptly by ourselves it will be made by others less sympathetic with our corporate failings.

If there are any here who have not read a recent article by Edward Filene of Boston, in which a critique of modern medicine is delightfully made, they should do so at once. There are 2 sentences in that essay to which I should like to direct your attention. "In the first place", he says: "I do not believe that doctors generally are receiving anything like sufficient pay for their services; in the second place, I think the public as a rule is paying altogether too much for what it gets." In a very brief sentence this is an appalling in-

dictment of economic ineffectiveness. Is it true? If it is, far-reaching adjustments will come about, either by change from within or by pressure from without. The second arresting sentence is this: "The function of the practitioner today must be less a matter of applying his own superior wisdom to the needs of the patient, and more and more a matter of placing at the service of the patient the knowledge and skill of the whole medical profession." This sounds revolutionary; here is modernism indeed. But if one thinks this is merely idle talk from an unenlightened outsider, listen to one of our own prophets; "We have the facts" says Ray Lyman Wilbur, "we have the trained physicians and nurses, but we have not as yet been able to meet the ideal of seeing that each member of civilized society obtains that advantage which is possible to him if he can get his share of the great pool of scientific medicine. To make medicine fit in with the other social forces, so that its distribution will be uniform, is vital."

The foregoing quotations turn one's mind inescapably to one of the fears which has been brooding over the profession for a good while past—one of those traditional ideals which must come under examination sooner or later in light of a new social estate.

What Dr. Wilbur and Mr. Filene are talking about really is the corporate practice of medicine, the assembling of professional scientific resources to serve large numbers of people with economy and effectiveness. The merchant says this will in the end mean better business and larger rewards; the physician and statesman says that we must do it to meet our responsibilities in an altered economic state of society—and in order to survive.

These proposals skirt perilously close to the bogey of *state medicine*. Here is a phrase around which has circulated a great deal of loose thought and emotion; in suggesting that it should be studied pro and con with clear-eyed detachment one need not, I hope, be under suspicion of favoring confiscation of medical practice by the commonwealth. There are many ways of pooling scientific resources to the welfare of society without surrendering either initiative or personal relationship of physician to patient—which seem to be the two precious inheritances of our guild.

State medicine, which can be made to mean almost anything, but which we may assume for ordinary purposes to mean the provision of medical care and service by government to any of its citizens at cost, or above cost or free, may be gravely inexpedient, but I for one am not sure that it is wrong in principle. In Iowa, obviously, it would be most undesirable as defined above, because of the abrupt economic

dislocation which would be involved. We who are concerned with the teaching hospitals of the state are guarding meticulously against invasions of private practice. But some very interesting experiments are going on in places where expediency is not involved—experiments which should be watched with care and with open minds.

But would not such intricate organization—such a mechanization of practice, inevitably dehumanize the whole process? Would it not be taking the bloom off of something which gives a special meaning to the ministry of healing? I think not. The art of noble behavior, someone has remarked, is not inconsistent with the practice of the scientific method; nor is it inconsistent with any form of the corporate practice of medicine. A look into any of the great public or private clinics of the country will show that if that kind of medical service is dehumanized, people like it.

I have a suspicion that there has been some sentimentalizing about all this which will not stand calm analysis. The need of gracious personalities in clinical relationships is as obvious in hospital wards as it is in private offices. Does anyone seriously question that a professor in the college of medicine is tender with his private clientele and cavalier with the poor folk who come constantly under his care; or that any of you deliberately deny the grace of sympathy and insight to any patient who cannot pay a fee? I shall go even further and suggest that it makes no essential difference whether the physician is compensated by a fee or by a salary. Heaven forbid that the benign arts of healing should be replaced by an impersonalism however masterly; that interest and human kindness should give way to callous skillfulness. One mentions these things merely to emphasize their irrelevance. The charge that corporate, group or governmental medicine in the nature of the case does away with something essential and lovely in the doctor-patient relationship seems to me mushy.

Everywhere one chooses to look, the new order in medicine is appearing—in pay clinics, in groups, in industrial hospitals and systems of hospitals, in provision by municipalities, states and nations for medical service to their dependents. The flux of highly individual business to highly organized business is neither easy nor comfortable, but the indications are that the change must be made, and is being made. There is something inexorable about it.

The important thing for all of us is to have concerted, sane and cheerful thinking about the vexatious problems before us, and to work

faithfully on solutions for them. The studies which are being undertaken by the Committee on the Cost of Medical Care are certain to be an important factor in the clarifying of this complex and delicate situation. The Committee's first function has been to gather facts, to group them—to analyze, tabulate, interpret. In that task they must depend not alone upon a small group of technical experts, but upon thousands of busy physicians, who can contribute something of value to the factual background necessary for their conclusions.

Above all, these questions, highly controversial though they may be, should be divested both of mystery and malice, and viewed as impersonally as one would look upon a laboratory test. Only by such a mental attitude and by such a degree of unity of action are we likely to adjust our art and science to the changing order of our time and to meet the challenge of a progressive society.

Esthetics

DIET YOUR MIND TOO

By Margaret Culkin Banning,

(Abstracted by the Editor from Harper's Magazine.)

It may be only through the working of the law of compensation that as soon as the dining table ceases to groan the library table begins, and that greed, denied to the body, seeks its new outlet in the mind. Perhaps gluttony must have a vent somewhere just to keep that respectable Deadly Sin in good standing. Certainly an outlet for it has been found. It may be a pleasanter world to look at since it is somewhat less of shin and thigh and stomach. But, it is not, on the whole, a pleasanter world to listen to. For everywhere now are the fat minds, the over-weight intelligences that function so badly and confusedly, puff and sigh at any bit of uphill thinking, and yet keep on stuffing and stuffing themselves, with that false appetite which indulgence stimulates.

There has been no general criticism or fear of this condition. Popular psychology, on the other hand, has been entirely sympathetic with it. The great mental shame of the past few years has been "narrowness" and its running mate has been to be "uninformed". It hardly mattered whether one broadened into distortion or what information was picked up, just so there was plenty of it. A great and alarming variety of knowledge has been made available. Gluttony, either mental or physical, is

possible only in the midst of abundance, and never have there been such opportunities for filling the mind to repletion.

The tremendous literacy of this country, spread so wide and so very thin, has built up almost overnight both a great clientele for knowledge and an uncounted number of brokers and dealers in it. These last are of all kinds, honest and fraudulent, distinguished and tawdry, solvent and bankrupt, as is always true and, no doubt, inevitable when any want of a great public is to be served. Competition between them has been largely centralized on ways to make what they have to offer cheaper and easier to obtain, more attractive, or, since there are always dealers who prey on snobbery, rare and exclusive. The effect on the consumer has been the usual one. His natural effort in seeking what he wants and needs is minimized; his taste is confused by the variety of things offered him and the arguments of the dealers; and what restraint or sense of fitness he may have had in the beginning is gradually lost in the excitement of acquisition.

It is probable that many people begin to be bewildered and to learn to gormandize during their educational years. The school system is often enough based on a theory of broadening the individual, giving him a hint or a peep-show glimpse of each of many kinds of knowledge. The variety of subjects introduced either in the course of study or associated with it is amazing even in elementary schools; and in secondary schools, colleges, and universities the piling up goes steadily on. But that is not all. In cities of any size dozens of extra-curricular advantages are offered and pressed upon school children—concerts, glimpses of touring royalties and popular heroes, visits to factories and museums, lectures by visiting celebrities, exceptional motion pictures, all recommended and allowed because "it would be a pity to let the children miss them".

Subject to discipline and correlation by very skillful instructors, this may be very well. But it teaches no control of the mental appetite, and every year thousands of people are released from formal academic discipline into a world which proposes quite definitely to see that they add to what is already stored in their crowded minds. They have by this time acquired a taste for collecting information, and that is almost enough to stamp them as intellectual citizens in any commonwealth in which a great deal of time is devoted to asking and answering "another". The vague ideal just now in fashion is well enough expressed by the equally vague phrase to be "up on things", and here again the word "things"

is just about as selective as the attitude which seeks knowledge concerning them.

Of course a great deal of machinery has been devised to do the selecting and distributing of knowledge. It is very modern, highly improved machinery, and you have to look at it piece by piece to realize its intricacy. Some of the parts are interdependent and some function by themselves, but they all serve a common end, which is to feed the human mind. The terrific, driving daily press, legitimate and tabloid, not only creating news but creating opinions by the million, with disaster, heroism, power, and corruption all dramatically materialized in people and events, comes first in importance. It is beyond doubt the greatest machine for distribution of facts, and it is always working, day and night. Other publications, the periodicals of all types, which analyze the significance of every happening, discovery, invention, and public mood, make another large and very expensive group of machines for arranging and distributing knowledge. There are motion pictures, hot-foot on the trail of events, vivifying the gestures and smiles of every prize fighter and statesman, making strange countries and peoples familiar, and vending, not always too honestly, methods and habits of life, morals and sentiments with which it used to be impossible for the common mind to become acquainted. No adventure is too remote, no public man too great for the cinema to bring them visually to Main Street.

Books follow, thousands upon thousands, in such a liaison with publicity now that it is possible to taunt a million church-goers with *Elmer Gantry* overnight, or make bywords of a blonde or a green hat. There is the theater of the spoken drama, less potent directly but every now and then demanding the foreground of the popular mind by some *coup d'état*. There is that frightening piece of machinery which is not yet even equipped with controls, the radio. There is the recent popularization of travel, so extensive that every year junketing in foreign countries slips down a peg socially. There are uncounted lectures and lecturers, healers and philosophers, each with his little hand-operated machine for grinding out facts or theories of some sort. All of these, either singly or in conjunction with one another, have for their purpose the dissemination of information such as it may be. Their customers are the minds of men, and their dealers struggle with one another to build up a prosperous trade.

There is, of course, the hermit point of view, the reluctant, frightened vision which decries all these things as evil and retreats from them. But hermits have gained their

dramatic value because of their essential rarity. There are only a few who would give up the modern world, swift, violently colored, and destructive as it is. We have recently learned a better way than giving it up. As bodily exhaustion began to be frequent and physical breakdowns at an early age rather alarming, as fatness began to creep over a nation which no longer sawed wood, nor did its own washing, we began to adjust our bodies to the world they lived in. Just when that word "fit" crept into common use is unrecorded. But there it was one morning, and the nation was morbidly conscious of its surplus flesh and flabby muscles. This condition was taken quite seriously. All the machinery was set in motion to combat it. Newspapers, magazines, books, radios, music machines, all took up the matter of keeping the body healthy. There was a great deal of false and foolish information broadcast, but gradually, out of the chaos of advice, one idea became dominant—which was that control of the appetites and physical exercise are the true methods of keeping fit. Everyone said that in such an exhausting age the only safe thing to do was to take care of one's self. Bedrooms became gymnasiums, and spinach grew popular. Thousands of men walked to work in the morning or played golf after 4 o'clock, and fashionable luncheons became frugal. This did not affect the whole of the world, but it may not be exaggeration to assume that, in this country at least, it did affect those people who had been the most tempted by an age of plenty and who could most easily avail themselves of its abundance.

But while the hullabaloo went on about how dangerous the times were for those who were not in full control of their bodies and regulating their physical appetites, no one thought much about the mind. It rapidly became unfashionable to stuff the body, but it remained very much in fashion to stuff the mind. It is curious that fitness of the body should have become almost a religion and that the simple principles of restraint and control should be so ignored in regard to the intelligence. Perhaps it is because no one thinks of a mind as showing its shapelessness. But it does. Every conversation, every attempt at thinking shows it for what it is, or has become, reveals either fine and disciplined proportions or the lack of them.

Alarming often it is the lack of them. The number of people who are unable to hold to one subject for an hour is appalling. But they cannot. It tires them too much. There are only a few who are completely informed on any subject. At a point far this side of conclusion, most conversations run

into the darkness of ignorance, and the people who are talking cannot lead themselves or others through it. Through lack of energy and fitness they have never mastered the subject under discussion, and the facts they know concerning it are only a few stray pieces of a puzzle.

I cannot tell what the conversations of a former generation may have been. I have an idea that many of them were tedious at the time and vastly over-rated afterward. They seem, from what one can pick up from hearsay, books, and the slow-moving dialogue of their contemporary drama, to have been flowery, dogmatic, and cluttered with quotations. This generation has thrown away the flowers and scrapped the dogma. All it has kept is the use of quotations, and they are by no means the same quotations, unless they are used upside down. But however pretentious talk formerly may have been, it was at least coherent and directed, and the notable qualities of most of the conversation one hears now are incoherence and irrelevance. Irrelevance is one of the funniest things in the world in the hands and on the tongues of experts, who have a genius for amusing juxtapositions. But with most of the people who use it it is nothing but a symptom of the fatigue and incapacity of their brains when faced with the problem of making a mental connection between 2 thoughts. There is usually no connection offered. One thought is dropped, and the fat mind does not bend over to pick it up. It reaches out for another idea.

In the library or living room of the average person who is called educated, look at the array of things spread for the greedy mind. There are a dozen periodicals: the blue one because everyone seems to be buying it, the pink one because of the amusing story in it, the white one for politics, the checked one for smartness—all jumbled together. There is a stray book of poems, that saga of the prairies that one must not miss, the book prescribed by the book club, the one which says that everything is hereditary, the one which says that nothing is hereditary (one must know both sides), the novel in the worn cover which goes just a little farther than any novel has gone before. It is an ill-balanced, greedy, almost hysteric collection.

This is not caricature. It is not putting the matter half strongly enough. If one leaned to caricature one could mention the painful incongruity of certain books in the hands of certain people, books placed there by the forces of advertising, fashion, or gossip, or picked up through mere lack of control. One could ridicule the general fumbling rush

after history, religion, psychology and philosophy, not singly, not successively, but with a vague desire to know something about everything all at once. No one tries to eat everything all at once or have every kind of thing on his dining table.

If the principles of control of the appetite and of exercise do not reach the mind soon, we shall have not only a great many ill-shaped minds and many lazy ones, but a shocking number which are really in poor health. There are more than a few now in everyone's acquaintance. The dangerous symptoms are obvious if you come to look for them, there for anyone to diagnose.

Usually the discomfort of the fat minds shows in their discontent, their eagerness to discard the old idea for the new one, and the new one for a newer one. They want to feel satisfied and, since they do not and cannot feel satisfied, they keep on stuffing themselves. Mental exercise becomes more and more impossible with the mere weight of the facts they have to carry around, and soon they stop thinking for themselves. They are sluggish and often depressed. They try patent cures of various kinds, always diagnosing their ailment as any other than the right one, or they go to specialists and ask what is wrong with life that it cannot manage to please them. And eventually comes invalidism or some breakdown of the nerves which try to keep pace with intemperate minds and cannot.

There is no more use in fighting your generation than your luck, but there are all sorts of ways to get around it, especially if you see your times for what they are, conditions in which you are the more variable and adjustable factor. It used to be that knowledge was difficult to acquire and the pursuit of it developed mental muscle. That period has apparently passed, and nothing and none of us will bring it back. Certain functioning in education is still necessary, but not the former struggle, nor great personal effort. Knowledge is offered everywhere in cheap and super-convenient forms. There are delicatessens, cafeterias, automats of it. You can pick up a tray of facts, take home a paper boat filled with a salad of history and opinion, put in your quarter and a new philosophy will slide out of the automat. Up and down every Main Street are brilliant and provocative displays of the things you should know, and their advertisements confront you everywhere. There are chain book stores and magazines not only for a bourgeois public but for the self-knighted literary aristocrats, and a growing number of clinics which offer the final luxury—to choose books for a lazy public, to select (with a guarantee of satisfaction)

the books one must not miss if one is to be well-informed. The ghosts of the books come out in the cinemas for those who will not read. Writers and thinkers boil down their ideas into an essence which can be contained in 60 minutes and serve them in a lecture room. For a dime—a dollar—10 dollars and up, you can find out all about history, psychology, religion, heredity, glands, and the sex indulgences of those above and below your station. Why should anyone go hungry? Nobody does. How can people keep from putting on mental flesh? Few do.

And yet, when we come to look at facts, all the great thinking of the world has been done by those who kept themselves on a mental diet. Great athletes, great fighters have never applied the principles of control or restraint more strictly than have great thinkers. Such men and women have never been greedy, never gluttonous. It did not occur to them that it was necessary or advisable to try to know something about everything. Much learning they went without. They knew what their own minds needed and went after that regardless of the welter of other knowledge. They were specialists. They were men and women of ideas.

That past tense is a blunder. I hardly know why I used it, for it is manifestly unfair. There is no real dearth of clear controlled thought yet. But I think it slipped into the sentence rather bitterly because it is such common sorrow to see minds which should be fit and active fall a prey to this terrible broadening. The past tense is only their epitaph.

It is not the part nor the ambition of every man to be a great thinker. But as the best physical diets pattern themselves somewhat after the regimens advised by those who get men into physical condition for great exploits, so the mental diet can get some idea of how it should be shaped by considering the habits of those whose thinking commands respect. In nearly every case one finds no great diffusion of interest. One does find direction and strict limitation of the mind again and again and a clear consciousness of what it individually needs.

In any form of diet the question always is when to begin and how much to cut down, and the answer is to begin at once and to cut down gradually but consistently until the proper normal weight is attained. There are no scales subtle enough to weigh the mind. But I think sometimes that it is possible to watch your mind in conversation or even in its thought and see if it seems overweight. It is possible, if you can regard it dispassionately and without vanity.

A temporary diet, at least, would do no harm to most people. Each person must figure it out for himself according to his age, his mental habits, and his natural interests. For it is those interests whose fitness should and will be increased by a diet. They are, often enough, imbedded in a mass of other people's ideas which must be sloughed off before the individuality moves easily.

The big problem—at least during the first diet—is the one of control. The things denied never seem so tempting or so omnipresent as during the period they are put aside. The displays of desirable things are maddeningly seductive. There is nothing to do except to go without and to do no tasting. So much knowledge you can allow yourself for maintenance and no more can you permit yourself to take in. You alternately feel absurd and abused, and nothing but will power will see you through. At first you will be hungry more than once and often you will be irritable.

There is also the matter of exercise. With the prevalence of street-cars and automobiles few of us need to walk. But even if we can ride, many of us have learned to choose to walk. If we want to go to a place we can either be taken there by machinery or we can walk to our destination and thereby keep our bodies in condition. If we want to arrive at a mental conclusion we can either get someone else, in print or person, to take us there, or we can think the matter through for ourselves, stretching every mental muscle as only hard thinking will do. It is tiresome in the beginning. It is laborious, and the unused mind will ache sadly for a time.

But, after a little, when you begin to feel lighter in your mind, it is worth it. The loose fat, other people's ideas, goes first. Irrelevant ideas of your own, half-developed ones, useless ones, disappear, and one day you find your mind working faster, feeling younger, more as it did before you began to know so much about so many things. That sensation is entirely worth the severe discipline.

It does not matter in the least what you find your mind, with its new liveness and spring, turning to. It may be cabbages or kings, humor or philosophy, to painting the lily or writing a new novel. The diet will not make your mind a remarkable instrument unless it was one in the beginning. But it will make it competent and fit, according to its capacities. It is sure to increase its health.

Of course that is not the end. We all know. We diet once and then we have to do it again. The age of plenty is our joy and our undoing. But there is great satisfaction

in being able to pick and choose in an age of plenty, to become, without excessive indulgence, an epicure of a sort, who can make even a diet a pleasure. Not too many new ideas; not too much sex; not more than one major interest; all the humor we can find, for that has no mental calories—a limited amount of everything else you like—that is the balanced diet for the average mind. And, in the end, when control has become to some extent automatic, it means the possession of a mind which is not "afraid to go home and think," a mind so lithe that it can bend over and touch its toes 20 times without stopping.

Medical Ethics

TO BE, OR NOT TO BE—ETHICAL

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

Our attention has recently been acutely directed to this subject by Dr. Shirley W. Wynne. Now, Dr. Wynne at this time is Commissioner of Health of the City of New York. He is a member of the American Public Health Association and Director of the Willard Parker Hospital. He graduated from the College of Physicians and Surgeons, New York City, in 1904. He is 48 years old, but looks younger. He entered the Department of Health, New York City, 23 years ago in a clerical position, upon finishing his internship at City Hospital, and has been in the Department ever since. He was the first man to receive a degree of Doctor of Public Health from the New York University. Six months ago the Better Times Medal for distinguished social service was awarded to him. He has been an ornament to and active member of the New York County Medical Society, the Academy of Medicine, the American Medical Association; a good, progressive Health Commissioner, and more.

The writer has taken this much space to describe Dr. Wynne, who is a clean-shaven, alert, active, young-looking man, and who has been not a figurehead as Health Commissioner, but one who is a worker and one who has been in the van of progressive and of all beneficial health matters, because we were more than surprised (and not a little shocked) to see his picture in a tooth-paste advertisement! Is it a case of a good man gone wrong? The New York County Medical Society evidently believes he has gone wrong, because last night (Oct. 13, 1930) the resignation of Dr. Wynne

was accepted at a meeting at the Academy of Medicine, Fifth Avenue and 103rd Street.

Now the writer frankly would be surprised if similar action had not been taken by the Medical Society of New Jersey in a similar case.

The pity of it is that it strikes a modest, unassuming, capable man; but this, however, instead of palliating the error, makes it more important and grievous even after Dr. Wynne tells us he has received no compensation for the advertisement. It is interesting to quote from the New York Evening Post of Oct. 9, 1930: "His break with the County Medical Society, he takes cheerfully, though it would be unfair to convey the impression that he takes it lightly. * * * As a matter of fact, this is not the first fight in which Dr. Wynne has become engaged. He has been urging a revision of the code of medical ethics for years. It was he who started a campaign against food racketeers who, he says, increase the cost of everything we eat.

"I happened to comment", says the reporter, "on the fact that there are doctors who secretly admit to sympathizing with him, but won't come out in the open and back him up."

"Oh, yes, I found that out long ago", he said. "Time and again, when I have spoken my mind at meetings of the Society, some of the other members would wait outside the door for me and tell me that they agreed with me. But they would never stand up in the meeting and say so. Medical ethics, as they exist today, are for the protection of the doctor rather than of the patient (sic). The question is really a very simple one. A code of ethics should exist for the purpose of helping to bring about a cure of curables and preventing illness among those who are well. Everything else is secondary. I know what they're going to say about me. If you are going to write a piece, they will say, 'Wynne is advertising himself for the benefit of his private practice'. As a matter of fact, I have only a very small private practice because I have not time for any more. I take a limited number of patients and only those who come recommended by other patients."

"I am not advocating that doctors should enter into a general competition of personal advertising. What I am urging is salesmanship of preventive medicine, which is the most important thing in the medical field to-day."

"When a man has a pain in his interior, you don't need to urge him to go to a doctor, any more than you have to sell him the idea of visiting a dentist if he has an abscessed

jaw. *It is the man who is well who needs to be sold on the proper methods to taking care of himself.*" (Italics mine.)

"Salesmanship of preventive medicine is the most important function of a public health department. When we started advertising the immunizing of children against diphtheria, many doctors scouted it. 'Just another fad of the Health Department', they said. And now they are all benefiting from it."

"Doctors complain about free clinics and complain about pay clinics. They complain about the group practice of medicine. If they don't take measures to reduce the abuses in the profession, they will find themselves confronted with State Medicine, as they are in England, Denmark and Germany. While that has advantages it does remove all initiative for individual effort, and doctors are the strongest individualists in the world."

Here follows Dr. Wynne's letter of resignation to the New York County Medical Society:

"I am a public official charged with the duty of protecting the public health, a high duty and responsibility, in the discharge of which I feel I cannot be hampered by antiquated interpretations of rules that governed the practice of the healing art in the dismal past. In the discharge of my public duty I have seen fit to make public communications with respect to the cleanliness of the mouth and teeth and other matters concerning public health.

The first information that came to my attention that a pettifoggery and critical attitude on the part of certain of the members of your society concerning my statement did not come, as I believe it proper, in any communication from your body, but through newspaper publication in which certain distorted views were evidently expressed by some one in authority in the medical society.

My resignation was a protest against this unjust and unfair method of procedure. There is no canon of ethics which I have been charged with violating.

I must pursue my work of public health education, untrammelled by shortsighted and now antiquated interpretations and, in practice, long discarded views of those members of the profession who are not public minded or alive to present-day needs of the public.

My resignation as a member of the society is my protest against this type of medical government and I have hope and faith that organized medicine may awake to its possibility of real public service and usefulness and that the historic medical society of this county may use its time and efforts not in useless criticism, but in constructive methods to aid the medical man in his efforts to promote the public good."

The writer is impressed with the importance of this matter, not alone to the New

York County Medical Society, but to the whole profession throughout the land.

In the book called "My Life and Work", such a prominent man as Henry Ford says: "Professional etiquette (ethics?) makes it very difficult for a wrong diagnosis to be corrected. The consulting physician, unless he be a man of great tact, will not change a diagnosis or a treatment unless the physician who has called him in is in thorough agreement, and then if a change is made it is usually without the knowledge of the patient. There seems to be a notion that the patient, and especially when in the hospital, becomes the property of the doctor. Many physicians seem to regard the sustaining of their own diagnoses of as great moment as the recovery of the patient." And in another place he says: "I am entirely convinced that what is known as professional etiquette is a curse to mankind and to the development of medicine." (!!)

I am sure the members of the Medical Society of the State of New Jersey (or even Dr. Wynne, Health Commissioner of the City of New York) would not subscribe to the above sentiments.

This subject comes up periodically in various medical societies. It is cussed and discussed. There is a younger group within our ranks whose members think that the old ideas (like the old doctors) are back numbers. Some of their own ideas can almost be called socialistic and insurgent. Radicalism is not the most expressive word. No one likes to be pilloried as a non-progressive. What is called in politics a "liberal" is the best status for the doctor.

We are sorry for Dr. Wynne because we believe his trouble has been brought upon him after he had followed the stern dictates of his honest convictions. But we do not think it was necessary for him to place his photograph on a tooth-paste advertisement. Would we not be shocked to see the name and picture of the President of the Medical Society of New Jersey advocating shaving cream, a tooth-paste, or a chewing-gum (laxative), even if the use of these articles did promote the health of the citizens of our fair state?

NOTE.—In the Jour. A. M. A., October 17, page 1268, under Current Comment, the Editor discusses the case of Dr. Wynne, and arrives at the following conclusion: "The question in this case appears to be not so much one of medical ethics as of scientific judgment and good taste."

The writer differs decidedly with this opinion and hopes that Dr. Fishbein, after reading the facts as above given, will coincide with his views.

In Lighter Vein

Down and Out

Judge—"It will go hard with you this time, Sambo; you look as if you have been drinking again."

Sambo—"Yes, sah, Judge, da sho' am pow-ful stuff Ah had. It was dat dere chicken hootch."

"Chicken hootch! Why, I have never heard of that before."

"Yes, sah, Judge, chicken hootch. One drink and you lay."—Kreolite News.

Ask Dad, He Knows

Two modern little girls, on their way home from Sunday School, were solemnly discussing the lesson. "Do you believe there is a devil?" asked one.

"No", said the other promptly. "It's like Santa Claus; it's your father."—Nebelspalter (Zurich).

Trust Mother Nature

"My husband is particularly liable to sea-sickness, captain," said the woman.

The skipper nodded. "I've heard of the complaint before, ma'am," he said.

"Could you tell him what to do in case of an attack?" asked the woman.

"Taint necessary, ma'am," replied the skipper. "He'll do it."—Montreal Star.

Giving Floyd a Chance

When the girls got through discussing the best place to hold their picnic, what seemed to be the slow, indolent drawl of Floyd Gibbons became audible on the radio.—Boston Herald.

According to a scientist the next war will be fought by wireless. What we heard on our set the other evening made us think it had started.—Punch.

The astounding thing about it is how many innocent men handled this G. O. P. oil money.—Dallas News.

And these power paint-sprayers must be a great help in a large family of girls.—St. Joseph News-Press.

"Where'd you git that derby hat?"

"Hit's a surprise from mah wife."

"A surprise?"

"Ah cums home de other night unexpected an' found hit on de table."

Inspection Invited

Cousin Sophy—"Marriage is a lottery!"

Cousin Reggy—"Oh, I don't know. A man ought to have a fair idea what he's getting these days."—Sydney Bulletin.

Obsolete Implement

Complaint is made that some crossword puzzles are too difficult. What girl, for instance, could be expected to guess that "worn on the finger" may mean a thimble?—Humorist.

Lighthouse Observations

ON CANCER CURES

(An abstract from *Annals of Internal Medicine*, May, 1930, reprinted from the *Journal of the American Medical Association*, June 7, 1930, pages 1864-5.)

The one encouraging sign of the present widespread discussion of an alleged cancer cure is that there seems to be developing a certain ethical sense as to the propriety of making any statement as to the supposed curative powers of any method of treatment of cancer whatsoever. During the last 40 years we have seen an almost annual exploitation of "cancer cures" which have had their brief season of notoriety and public attention, and then failing, as all have failed and must fail, have passed along into the discard of oblivion. The path of progress of medical knowledge is strewn with abandoned cancer-cure wreckage of every kind and description. In a general way such cancer cures reflect the ideas of cancer etiology prevailing at the time. In the nineties of the last century and in the first decade of the present one the predominant idea as to the cause of cancer was that cancer was an infectious disease and that ultimately some specific cancer organism must be found. When found, cancer therapy would naturally resolve itself into the attempt to conquer the organism or to abrogate its action upon the body by means of antibacterial or antitoxic methods and means.

It was natural that at the outset a certain analogy between cancer and infectious disease should have been thought to exist. The origin and manner of growth of neoplasms suggested in many ways the action of a parasite; and the bacteriologic stage of cancer investigation was a logical and necessary one in the attainment of the knowledge of the nature of cancer which we now possess. Every form of microorganism known to science practically has at one time or other been regarded as a possible cancer cause: there have been cancer cocci, bacilli and spirilla figured and described; cancer yeasts and molds have had their little day of etiologic prominence; and finally various organisms regarded as protozoa have had beautiful cycles of development illustrated in minute detail. In this connection the mistaken diagnosis of cork cells as cancer parasites may be recalled. And we just missed the possibility of including round-worms and a species of *Taenia* as specific agents of tumor etiology in the form of *Spiroptera neoplastica* and *Taenia crassicollis*. Fortunately, the experimental rôle played by these verminous parasites in the production of animal neoplasms came along after the controlling part played by heredity and cancer susceptibility in the development of neoplasm had become known to us, so that no specific agency was attributed to these worms as etiologic agents of cancer.

By the end of the first decade of this century experimental animal work, together with the fuller bacteriologic and pathologic studies of neoplasm, had convinced us that cancer is not an infectious disease, that no specific living agent exists for the production of cancer; and that the part played by living organisms in the development of neoplasm is but purely that of a secondary, non-specific extrinsic factor of irritation, which will have no effect in the production of neoplasm in any one not possessing an intrinsic cancer sus-

ceptibility or tendency. This knowledge is now generally accepted, and very few pathologists today regard the infectious theory of cancer as being any longer worthy of consideration. But still there will crop up among practitioners at large cancer cures based on an unfounded premise of cancer as an infectious process. Mistaken conceptions regarding certain infectious growths in the lower animals, particularly the so-called Rous chicken sarcoma, have been in part responsible for the persistence of such views. By many workers the chicken sarcoma is regarded as an infectious granuloma and not comparable to the true neoplasms of man. The last ditch of the infective theory for the etiology of neoplasm was that of Gye and Barnard, who invented an ingenious compromise between the infective and chemical theories of cancer etiology through the assumption of a *nonspecific living agent* and a *specific chemical substance*, both of which are essential to neoplasm production—an assumption so far fetched that it is amazing that it should have received any scientific consideration at all, and all attempts at the control of the Gye-Barnard work have been, as expected, wholly negative. There exists, therefore, today absolutely no proof that infection plays any specific exciting cause in the production of neoplasm; hence all cancer cures based upon such an assumption of etiology may at once be dismissed as outside the realms of possibility. No specific antibodies are formed in the bodies of cancer patients, and all cancer therapy in the form of serums and vaccines becomes at once theoretically impossible and practically worthless. No hope is to be held out for any curative or preventive method to be developed along these lines. This should dispose of all the cancer cures based upon such ignorance of the actual pathologic situation; and the public should be educated as to this point, as well as the members of the profession. When once the public mind has become cognizant of the fact that cancer has no infectious etiology, much will have been accomplished to prevent cancer patients from falling victims to cancer cures.

A second class of cancer therapy is based upon the equally false hopes of destroying the cancer cells within the body. In their earliest form, such cures consisted in the application of caustic applications directly to the affected part. Zinc and arsenical pastes and other forms of corrosives were used for this purpose, and many patients suffered untold agony from the ulcerating and gangrenous sloughs produced by these applications, with the result of exacerbation of the growth, rather than an inhibition. The majority of the old-fashioned quack, Indian and herb cures for cancer were of this variety. Even today one meets with patients who are suffering from the use of cures reputed to "eat out the cancer". While it is possible that certain superficial and sharply localized cancers might be destroyed by such destructive applications, such is usually not the case, and in no way can such methods be compared with those of clean surgical removal. Under the irritation of such methods, cancers usually show an increased rate of growth. Moreover, the attempt to destroy neoplasms by the injection, either into their substance or into the body itself, of various lytic substances has been tried out to no avail.

It is a well known fact that the older portions of malignant neoplasms undergo degeneration and necrosis, and that almost anything injected into the neoplasm will aid in producing such regressive changes. Moreover, the spontaneous regres-

sion of neoplastic nodules may at times be so great that the nodules may be so reduced in size as to apparently disappear. Only in the case of malignant syncytioma has the spontaneous disappearance of a metastatic nodule been known to occur, but this neoplasm arising from chronic epithelium must be considered in a class apart from the tissues and organs of the individual body. Moreover, the general effects produced by the injection of cancer-lytic material often add greatly to the tumor cachexia present, and the great majority of them only hasten the end instead of delaying it. Herein belong such substances as Coley's mixed toxins, extracts of various organs and tissues, sera and effusions from cancer patients, and various endocrinal preparations, such as the Coffey-Humber extract of adrenal cortex. It has long been known that necrosis of tissue would follow the injection of adrenal gland extracts, as, for instance, gangrene of the abdominal wall in experimental animals. Such an action has in no case been shown to be specific for cancer cells alone, and the sad fact attending the use of all such lytic substances is that only the older portions of the neoplasm are affected and die while the growth of the younger cancer cells is apparently only stimulated. At any rate, rapid increase in the growth and spread of neoplasms is often seen as a result of their use. Precisely similar is the situation attending the use of the intravenous injection of colloidal preparations of heavy metals, lead, gold, silver, copper, etc. Was no lesson learned from the Blair Bell colloidal lead fiasco? Any pathologist with only a rudimentary knowledge of general pathology should have been sure as to the ultimate failure of such a treatment, and of the falseness of the premises upon which the philosophy of this treatment was built. Why was Bell's statement as to lead being lytic for chorionic epithelium not challenged? There was absolutely no proof of such an action of lead upon the placental ectoderm, or of his interpretation of the action of lead in producing abortion. What was known of the vascular action of lead poisoning should have been sufficient to offset these unwarranted claims as to the specific destructive action of lead upon embryonal cells. And yet so curiously unbalanced is human psychology that a noted pathologist supported Bell's claims, just as a reputable journal of medicine uttered glowing prophecies as to the important therapeutic significance of the Gye-Barnard fiasco. In such cases the conservative doubting pathologist finds himself too often in Cassandra's position, and is put down for a pessimistic prophet. His only satisfaction is that if he lives long enough he is sure to have the last laugh. But, joking aside, this is all too serious a matter for even satisfaction at having correctly prophesied. None of the carefully controlled experimental work in this line has shown the slightest specific action of any of the colloidal metallic preparations upon the cells of neoplasm. To kill all of the cancer cells by any method of chemical therapy would mean the death also of the body cells, and what is most probable is that they would die before the cancer cells, because of the greater emancipation of the latter from the general body metabolism and chemistry.

It seems certain that nothing can be hoped for in the nature of any substance that, injected into the body, will kill all the cells of the parasite neoplasm and leave undamaged the cells of its host. The world is not built upon that line. It is not pessimism which makes us declare that a cancer cure of this nature will never be found; in the

very nature of things it does not and cannot exist. And, further, we may safely declare that a cancer cure as such is beyond all probability of achievement. Cancer is not simply a local disease, as is a streptococcus boil; we know now that it is primarily a disease of the entire organism, an anomaly of the individual constitution. Moreover, a local organ or tissue predisposition is also necessary for its development. The general constitutional anomaly determines whether an individual can have a cancer; the local organ predisposition determines the site of the cancer. Further, there is the external factor of irritation to be considered. We do not yet know whether this extrinsic factor can take the place of the local organ predisposition, but there appears to be some evidence to the effect that it can. The general constitutional cancer susceptibility is an inherited one, although this inheritance may manifest itself in different forms in different families. Further, the members of a family possessing the cancer susceptibility do not all possess the same degree of strength of the cancer predisposition; in some the cancer may appear early and without the operation of the extrinsic factor; in other members of the same family the cancer susceptibility may not show itself until very late in life, or be brought out only through the action of the extrinsic factor. The number of cancer deaths must be very much less than the number of individuals possessing the cancer susceptibility, as many of the latter will die of other diseases before the cancer susceptibility can assert itself.

If we can promise no specific cure for cancer, what can we do to restrict its ravages? We may attempt to breed out the intrinsic cancer susceptibility, but that will take many generations of eugenic breeding. Against the development of the local organ predisposition there is much greater ground for hope. Congenital anomalies in the Cohnheim sense of misplaced tissues may be corrected or removed, and the extrinsic factors producing chronic irritation favoring cancer development may be largely controlled or abrogated. Much can be done in this direction for the prevention of cancer development. And, in the case of its development, early diagnosis and complete and extensive surgical removal will tend to bring about more complete cures than we are seeing today. There is much room for advance along the lines of both early diagnosis and thorough removal. Conservatism as to the extent of operation in the removal of a primary cancer is the chief mistake made by surgeons in the treatment of cancer. With a better knowledge of the pathology of the different forms of neoplasm, surgeons will cease to "shell out" neoplasms or to cut too closely to the border of an infiltrating growth. From the standpoint of the pathologist, these are common errors of surgical technic. As to the curative results from x-ray and radium irradiation, these methods of treatment of malignant neoplasms have proved very disappointing. Particularly is the irradiation of the affected area after operative removal of the neoplasm now being advised against, as some workers believe that such irradiation favors the occurrence of metastases. To sum up, there is little or no chance of any specific therapeutic agent for cancer ever being found; therefore, the advertisement and exploitation of so-called cancer cures lead only to the tragic blasting of unwarranted hopes excited in the lay mind through such announcements. Would it not be much better to prevent such public calamities by the development

of a strong ethical sense that would lead to the censuring of the premature announcement to laymen of all experimental work connected with cancer therapy? Such exploitation should be regarded as beyond the limits of medical ethics and of common decency.

Public Relations

THE COST OF MEDICAL CARE

(Editorial, Ladies' Home Journal, October 1930)

We hear much about values in our daily life. The wheat crop is worth so much; our exports have increased so many millions; this industry has lost, that one has gained, and so on.

As a matter of fact, however, there is only one paramount value in this world—human life. Human life is what gives value to manufactured products—to radios, automobiles, soap, canned goods, wheat crops and pig iron. Even music does not exist unless a human ear hears it; gold in mountain fastnesses has no value unless discovered by some prospector.

The preservation and the well-being of the human race is of supreme importance. Yet the fearful toll that is being exacted annually by disease and improper living goes relentlessly on.

According to a recent report of a joint committee on health problems of the American Medical Association and the National Education Association, the taxpayers of the country pay more than \$927,000,000 a year to care for the victims of tuberculosis and heart disease and those physically delinquent. To the tuberculous goes \$800,000,000—and the tuberculosis fight was thought to be won! The report estimates that the death of tuberculous victims costs the people of the United States a billion and a half annually. The loss from typhoid has been materially reduced, but still approximately 5 persons per 100,000 population die from it annually.

The whole subject of the cost of medical care has been under examination for the past 3 years by a committee of that name. The thought has been uppermost in the minds of many, as Frederick L. Collins suggests in an article in this issue, that the cost of medical care is too high.

Socialization of the medical profession is not the solution. The Journal believes, with Dr. Ray Lyman Wilbur, chairman of the committee, that "the personal relation between physician and patient must be preserved in any effective system of medical service". No system of state medicine proposed can guarantee that.

Dr. Wilbur also proposes that "the medical service of the community should provide for a systematic and intensive use of preventive measures in private practice and for more effective support of preventive measures in public-health work". The knowledge that we have, if applied, would render unnecessary much of the present expense incurred in curing sickness.

Dr. Wilbur, in line with this thinking, adds that "the medical service of a community should include the necessary scientific equipment for adequate diagnosis and treatment".

Much of the high cost of medical care is not due to the doctors, the system of treatment, excessive fees in nursing, hospitalization, or medical work. It is due to our own improper demands, to our expensive and usually ineffective attempts at self-medication.

GREAT CONCESSION TO DOCTORS

(New York Times, Nov. 11, 1930.)

Somebody in the Department of Justice, now master of prohibition, devised a new scheme for bothering doctors. The United States graciously permits them to buy at one time 6 quarts of whisky a year, for medical or surgical use in their offices. This allowance is apart from their quota for prescriptions. Let us hold their noses under the grindstone more rigidly, said the unknown genius. Make 'em apply for a single quart of whisky every 2 months.

There spoke the soul of the bureaucrat. Pile up documents. Enlarge the number of government employees and, incidentally, make more work for the long-suffering medicos. But now is the time to cut expenses and not play the dry motif too hard. The department followed the opinion of officers of the American Medical Association and decided that the new plan would be only an additional annoyance to the medical profession. Besides, it would cost too much.

So the annual half-dozen may be conveniently bought at one time. The officers of the Association are actually grateful to have escaped another Federal imposition. Dr. Congress continues to regulate their alcoholic prescriptions. They must be surprised when the Department of Justice is able to refrain from making their leading strings tauter.

LIGHT ON AN IMPORTANT QUESTION

(Newark Evening News, Aug. 11, 1930.)

Dr. Linn Emerson, of Orange, puts in vigorous language, with admirable brevity, the same indictment of "the maladministration of medical charity" which stood out in the Newark hospital survey and is present in all discussion of the high cost of being ill. He suggests the establishment by doctors of pay clinics to provide a partial remedy, but it is clear from his context that he believes the real cure lies in public support of the indigent sick through the municipal treasury.

"The butcher, the baker and the grocer do not furnish the poor with food gratis", Dr. Emerson writes. "Why, then, should the medical profession bear the burden of medical charity?" There is no gainsaying his contention that, while derision would greet any suggestion that the municipal purse provide for all hospital and medical charity, "that is where the burden rightly belongs". The public health is a public concern, and recognition of his view is publicly accorded wherever, as in Newark, there is a municipally supported free hospital.

What happens because this problem is not grappled with, by eliminating from charity those who can pay in some degree for hospital and medical care and placing the burden of the actual pauper sick upon the public treasury, has rarely been so frankly pictured as by Dr. Emerson:

Even though I fit 10 pairs of glasses at a free clinic without charge, I cannot go back to my office and charge rich patients \$25 to \$50 for the same service, for no matter how wealthy they may be they will resist excessive charges. So I charge 2 or 3 wealthy patients as much as I think they will pay without protest, and charge 6 or 8 middle-class fellows twice as much as they can afford to pay.

The physician's contribution to charity is thus shared by him with his pay patients, more or less in proportion to his estimate of their ability to pay. The same is true of the organized medical services represented by hospitals. That portion of the public which pays most of the taxes, income and otherwise, therefore assumes the bulk of this burden. It might be more equitably distributed through the tax rate, for then the fortunate well would assume part of it. As it is, every medical and surgical fee and every hospital bill represents on the average a contribution of a third to a quarter of the sum to the care of others who are or pretend to be unable to pay for being sick.

Whether the remedy Dr. Emerson favors is the right one, he has thrown light in a vivid way upon an important question confronting modern urban society.

MEDICAL COSTS PROBLEM FOR THE DOCTORS

(Newark Evening News, Aug. 28, 1930.)

Latest professional commentary upon the growing problem of medical costs comes from Dr. W. Harvey Smith, a Canadian recently elected head of the British Medical Association. He suggests that the remedy lies in health insurance. Dr. Smith recalls the recent comment of Dr. Emerson, of Orange, and a dozen others who, conceding the need of solution, have made their suggestions.

Pending the reports of the several professional and other commissions which are studying the question broadly, such individual discussions are welcome, if only because they clinch the argument that there is a major problem of this sort. Dr. Emerson's suggestion that the municipality, through taxation, assume the burden of actual pauper illness has been conceded merit. There is merit in the Canadian physician's proposal, if society through its organized units is to assume the burden of actually or relatively impecunious individuals who are victims of serious illness.

But how far can social responsibility and its rising costs go? Is there not a remedy for this situation which stops short of socializing medicine? The doctors fear this consequence of passing the buck to organized society. The average individual, too, would resist a solution which in the final analysis would mean the state must select his doctor, his hospital and the status of his care by both.

Perhaps the best promise of a less extreme method of meeting the need lies in the widening and serious interest the doctors and their organizations are showing. They may have the cure in their own hands. At any rate, to find a remedy is their problem.

CITY ISSUES CIRCULAR ON HOW TO KEEP WELL

(Atlantic City Press, Oct. 11, 1930.)

Mayor Bacharach and Dr. S. L. Salasin, as heads of the city health department, have gone into the publication business for the purpose of spreading information on the subject now engrossing universal attention, namely, how to keep well. Beginning this month they are issuing a bulletin, with the coöperation of the American Public Health Association, and entitled, "Health News".

The publication of this little 6 page bulletin is an experiment. It will be issued for 3 months. If at the end of the trial period it is found to have

aroused interest, and is being read—for it is carrying features of a character likely to appeal to all—it will be continued.

On the front cover of the initial issue there is a cartoon depicting a stock raiser, and bearing the caption: "*Lem Sikes has had his hogs immunized against cholera. His children are still unprotected against diphtheria and smallpox, but of course his pigs are thoroughbreds.*"

The back page is a health poster for children, discussing the value of good teeth, and importance of caring for them. The inside pages have articles on what the educated person should know about personal and public health; on the inconsistency of men who live contrary to the laws of nature, and who care more for their motorcars than their bodies.

The subject of vitamins is also made easy to comprehend. On another page there is a brief discussion of municipal cleanliness, and the powers of city health officers. Other items make up a snappy paper which convey the lessons intended to be learned in a graphic and entertaining way.

School Health Department

ATTENDANCE AND HEALTH

Allen G. Ireland, M.D.,

Director of Physical and Health Education, State Department of Public Instruction, Trenton, N. J.

Not infrequently, the newspapers report a child as having an unusual attendance record at school. It is held up, perhaps, as a record for other pupils to equal or better. Now, it is rather nice for the child to have his picture and a story about himself in the paper. Indeed, there is a thrill in it for most adults. To the child, it is the height of glory, fame, and personal achievement. The point is, it constitutes a force with a great drive. There is some justification to the belief that not a few doting mothers seek to bask in the reflected glory of their "attendance-perfect" children. It matters not about the fitness of the child for school. Headaches, flushed faces, coughs, sore throats, even slight fevers are brushed aside as just some more of those things children have to pester parents with. Perhaps the mother believes in the comic strip bad boy who feigns aches and hurts ad lib in order to avoid school. At any rate, the drive is on. John and Mary must *not* be absent or tardy. Those children of the Jones family next door must not excel. At all costs, keep the teacher's record book free of check marks against your names, my children!

The morning comes when Johnny really doesn't feel well. "Tut, tut, John, you're all right. It's just a little something (?) that will pass off before you get to school. Remember, Henry Jones wasn't absent once all last year." This from mother. And the war is on. The competitive tendency comes to the fore.

Mother continues: "Anyway, John, if you are still feeling sick at 10 o'clock, ask the teacher to let you come home. Don't say anything about it until after roll call."

Johnny dutifully obeys. He successfully hides his indisposition from both teacher and nurse. He

borrows and returns a pencil from the pupil across the aisle. During the course of the few minutes covered by the loan, the pencil has gone in and out of his mouth several times. Since children are what they are, the same pencil goes in and out of the mouth of its owner several times. The germs are delighted.

Johnny coughs and he sneezes. His teacher has been too busy to think of teaching him to cover his nose and mouth with a handkerchief. Anyway, he felt so mean this morning that he came off to school without getting a handkerchief from the bureau. New territory is conquered by Johnny's particular army of germs.

Playtime comes. Remembering mother's admonition to act well, Johnny joins the group. In the course of the game, he holds hands with the others in a circle; the same hands he had in his mouth a few minutes ago. Unconsciously, of course, but he's only a child who can't help doing such things. The game required that he whisper secret numbers into the ears of several playmates. It was too bad that he had to cough at just the moment of whispering. It was because his throat hurt a little. "Oh well, perhaps mother was right. He would be all right. Anyway, there would be a clean record opposite his name in the teacher's register. But, gee, if he didn't feel better soon, he would have to tell teacher. She couldn't mark him absent now."

Johnny is allowed to go home but his record is clean. Both mother and Johnny are alarmed, however, for there is the afternoon session to be attended. Nothing must interfere with *school attendance*. Why, last month, John's school was down toward the bottom of the list in the county rating. The teacher had said so, and it was in the newspaper. The principal had spoken of it at assembly and he had said something about school pride and how every pupil must do his bit. Johnny, the little soldier, must come to the rescue. He must fight to the last ditch like a real soldier. For the honor of the school record! You see, Johnny can be pardoned, because he didn't know about communicable disease.

What to do! Johnny and mother are thinking of that afternoon roll call. Oh, dear! Hot water bottle, ice-bag, gargles. "Now you're feeling better aren't you, Johnny?"

A little later. "You're not feeling better? I suppose then we shall have to call a doctor. But father will kick because of the expense. Our bills last month were terrible."

The doctor comes. Diagnosis—SCARLET FEVER.

A few days later, 1, 2, 3, 4 cases of scarlet fever break out in Johnny's school room.

Now, supposing that Johnny's case was of a light ambulatory type. His slight indisposition was passed by as this, or that, a cold perhaps, or constipation, or what not. Yet, several cases of scarlet fever appear at school. No one knows from whence it came. The source baffles everyone. But Johnny's attendance record is clean. He is still up with Henry Jones and maybe next June when school closes he'll see his picture in the paper. John has done his share toward moving his school up nearer the top in the county rating. But at what cost?

And so it goes! It might have been measles, mumps, or any one of the list of diseases common among children. It might have been impetigo, pediculosis, scabies. Does anyone wonder that disease prevails almost continuously in schools?

Communications

WOOD ALCOHOL IS MENACE IN AUTOS

(Letter from Dr. Norton L. Wilson,
Elizabeth, N. J.)

I think this subject is of sufficient importance to mention in our Journal. The clipping is from the Washington Post of September 2.

"Although it is hard for anyone to visualize sub-freezing temperatures in such blistering weather as Washington is now experiencing, the District Medical Society yesterday issued a warning that unless public health authorities prohibit the use of wood alcohol in auto radiators next winter many motorists may be blinded or killed by the fumes.

Dr. Coursen B. Conklin, secretary of the society, called attention to the danger as shown in the current warnings issued by the American Medical Association.

The Journal of the Association in its leading editorial August 29, says:

"If, as now seems probable, methanol is widely sold for use in automobiles during the coming winter, and if precautions and warnings in regard to the dangers of inhaling its fumes from heated automobile radiators are not instituted, it is highly probable that many cases of blindness will result, and probably also fatalities.

The American people are beginning to be protected so far as concerns the food they take into their stomachs. They have only inadequate protection of the air they take into their lungs."

It makes little difference, it is said, whether methanol, or wood alcohol, enters the body through the mouth, the lungs or the skin."

Woman's Auxiliary

DANGERS OF SUNBURN

On several occasions it has been suggested that auxiliary members might familiarize themselves with medical problems that particularly interest the layman or that afford opportunity to assist the profession in its efforts to educate the public concerning health matters. Some state auxiliaries have adopted the plan of special "study courses", others are apparently relying upon their state society Journal to supply occasional instructive articles. In as much as New Jersey has so many health and pleasure resorts and so many millions of people each year visit our seashore, lake and country resorts, it seems appropriate to direct attention to the recent fad of exposing the body to free play of the sunshine. Like many of the other good things of life, the sun's ray may cause trouble if indulged in to excess.

During the summer 2 articles published in the Literary Digest pointed out some of the dangers of sunburning, and these are so clearly expressed that we deem them worthy of presentation for your information, to the end that you may be able to aid in saving the uninformed or foolish from becoming victims of a fad that has some merit.

The Good and Evil of Getting Tanned

Brilliant sunlight may do harm as well as good, says Dr. W. A. Evans in the Chicago Tribune. It is like any other powerful agent, and the idea

that exposure to it is healthful, always and to any extent, is erroneous. He writes:

"I have been giving this matter some thought for several years, as well as watching the experimentation being done in laboratories and reading the literature found in libraries. The conclusion I have come to is that for a well man to expose himself to direct sunlight to an extreme extent in summer, does him no good. In some respects it harms him or may do so. A thoroughly tanned skin will never get back to prize-winning condition. *No woman ever tanned her skin to a mahogany brown, and later became noted for a peachblow complexion.* The only way such a woman ever gets a fine complexion is by purchase. Tanned skins are somewhat prone to develop skin cancer. Sunlight acts on certain sterol bodies in and near the skin, producing new chemical compounds. These compounds help to combat pneumonia, colds, and consumption. So far, their action is all to the good. But sunlight is a powerful medicine, and powerful are the compounds it forms with the sterol bodies—powerful for good and powerful for harm. We need these compounds to prevent and cure rickets, to stabilize the nerves, and to help resistance against colds, pneumonia, and consumption. But adults do not need help against rickets. In winter they need more sunlight than they can get in order to protect themselves against colds and pneumonias. But we are talking about summer now, and in that season sunlight is in excess. This story has to do only with well adults in the summer season. The senile process—the process of growing old—is abetted by sunlight, at least in plants. Maybe these tanned men and women are inviting premature senility."

Are You a Heliophobe?

If you are, keep out of the bright sunlight.

Don't try to get tanned; heliophobes don't tan. They burn; and excessive sunburn makes them ill.

These facts are set forth by Dr. Charles F. Pabst, chief dermatologist of the Greenpoint Hospital, Brooklyn, New York, in a pamphlet reprinted from *The Medical Mentor* (New York). Dr. Pabst sets forth his arguments in narrative form, substantially as follows:

"'Good-morning, doctor!' exclaimed the beautiful Miss Beach with an air of suppressed excitement, 'Am I a heliophobe?' 'Please be seated and I shall try to find out,' replied Dr. Shoreman.

'A heliophobe', explained the doctor, 'is an individual who is morbidly sensitive to the effects of the sun's rays, and whose skin will redden, blister, and burn, but never tan. A heliophobe should not try to become a bronze Venus or Adonis. I realize that sun tan has become quite fashionable, and is the goal of thousands of vacationists, yet constant danger lurks in the sun. Serious illness, and even death, has often followed injudicious exposure to the sun's rays during the summer months.

'Every year 200,000 working days are lost because of illness due to sunburn, which represents an annual loss of \$1,400,000. In the majority of cases the sunburn is deliberately and intentionally acquired.'

Picking up a magnifying lens, Dr. Shoreham carefully examined the texture of his patient's skin. It was smooth, soft and clear, but a trifle whiter than the average. She had blue eyes, and natural blond hair. 'You are a Nordic', announced the doctor, 'and the majority of Nordics are heliophobes'.

'I have often tried to acquire a coat of tan, but never succeeded', interrupted the fair patient. 'That settles it', Dr. Shoreham replied, 'you are a heliophobe. You should protect yourself from the sun's rays, especially during June, July and August, because in those months the rays of the sun are very rich in ultraviolet light, which burns and blisters the skin. This ultraviolet light is most intense from 10 a. m. until 2 p. m. (Standard Time), so if you wish to avoid severe sunburn, protect yourself from the sunlight between these hours. If one is not a heliophobe, the safest way to obtain sun tan is to begin with a 5 minute exposure before 10 a. m., and increase the time of exposure 10 minutes each day. At the end of 10 days a light tan is achieved, without any burning of the skin, and one may now indulge in longer exposures.'

'After an individual has acquired a deep coat of tan, is it safe to expose the tanned portions of the body to the sunlight for long sessions?' inquired Miss Beach. 'Quite safe', assured the doctor. 'Protection is afforded by the pigment called melanin, in the deepest layers of the skin cells. The deep cells actually have the power to manufacture additional pigment, and that is exactly what occurs when you acquire a sun tan. In a heliophobe, the skin cells lack this ability.

'Nature has given the Negro a dark skin in order to protect him from the strong ultraviolet light of the tropics. The blond, white skinned races in the north do not require this heavy pigmentation.'

'Under the microscope', continued the doctor, 'the pigment in the skin cells looks like tiny particles of brown paint. Sometimes the pigment is unevenly manufactured, and collects in 'spots' called 'freckles'. The skin cells between the freckles are unable to produce the melanin, which imparts the color to the freckles. This explains why it is so difficult to remove freckles.

Recent tests and experiments have been conducted in an effort to protect the skin of one who can not tan from the harmful effects of strong sunlight. A glucosid called esculin has been extracted from the bark of the horse chestnut, and when applied to the skin before exposure to the sun, affords considerable protection.

It is not the heat of the sun that produces sunburn, but the ultraviolet rays', explained Dr. Shoreham. 'One should consider ultraviolet light similar to a drug or chemical—say quinin, for example. A small dose is usually beneficial, but a large dose may cause great damage, such as inflammation of the optic nerve and blindness, and there are some individuals who can not take even a small dose without harmful effects.'

'It must be dangerous to expose a baby to direct sunlight during the summer months', commented Miss Beach. 'Very dangerous', replied the doctor; 'the skin of a baby or young child is more susceptible to the rays of the sun than is that of an adult, other things being equal, because the young organism has not yet learned how to protect itself, and the skin cells are unable to manufacture pigment quickly enough to shield it from the ultraviolet light. One should always bear in mind', pointed out the doctor, 'that sunstroke, sunburn, and sun tan are three entirely different conditions resulting from overexposure to the sun's rays'.

'Is sunburn ever fatal?' asked Miss Beach.

'If one-half or more of the body surface is sunburnt, serious internal complications, and even death, may result', warned the doctor. 'If a sunburn is severe enough to cause the formation of blisters, there is danger of infection through the

broken skin, and all such cases should receive the attention of a physician. Thousands of persons are severely sunburned at bathing beaches. It is a great mistake to sit in the strong sunlight when the body is wet, as the small drops of water act as tiny magnifying lenses.'

'Why is it, doctor, that whenever I go boating, I am always painfully sunburned, even though I wear a large hat?' 'It is because the water reflects the ultraviolet rays of the sun, and these are responsible for the sunburn', answered Dr. Shoreham.

'When sunburn is of the first degree, it simply causes a redness of the skin, without blister formation', said the doctor. 'For this mild type of sunburn there are several remedies which will afford relief. The application of boric acid ointment, or a mixture of equal parts of linseed oil and lime water, will soothe and heal the inflamed skin. If a burn is of the second degree, blisters are formed, and it is not advisable to attempt self-treatment. I have formulated a set of five rules which will prove beneficial to those who wish to avoid the dangers of sunburn, and helpful to those who desire the fashionable sun tan:

1. Acquire a coat of tan, if possible, by means of short exposures.
2. If your skin will not tan, you are a heliophobe, and should not expose yourself, as every new exposure means a new burn.
3. Do not sleep on the beach in the direct rays of the sun.
4. When fishing or sailing, remember that the water reflects the ultraviolet light, which may burn you.
5. During June, July and August, protect yourself from the direct rays of the sun, as a severe case of sunburn may cause serious illness, and even death.'

'Good-bye, doctor, and thank you for relieving my mind.'

EXECUTIVE BOARD IS ENTERTAINED

Mrs. G. N. J. Sommer entertained at her home on West State Street, the members of the Executive Board of the Mercer County Branch, Woman's Auxiliary, to the Medical Society of New Jersey. Mrs. Sommer is a director on the State Board of the Auxiliary and her guests were the officers of the organization in this county, who at this time planned for the November meeting of the auxiliary, which is to take place on the same evening as the session of the Mercer County Component Medical Society.

Mrs. Sommer's guests were: Mrs. William C. Ivins, Mrs. John B. Sill and Mrs. Frank G. Scammell, Past Presidents, advisory members of the board; the President, Mrs. D. Leo Haggerty; the Vice-Presidents, Mrs. L. Samuel Sica and Mrs. Alton S. Fell; Treasurer, Mrs. Charles F. Adams, and Secretary, Mrs. Ernest F. Purcell.

Bergen County

Reported by Mrs. Winfield Kilts

The Woman's Auxiliary to the Bergen County Medical Society held its Annual Luncheon and election of officers on Tuesday, October 14, at Hans Christian Anderson Tea Room, West Englewood, with evidence of all enthusiasm for the ensuing year.

Installation of officers was as follows: President, Mrs. Winfield Kilts, Teaneck; Vice-President, Mrs. Joseph Morrow, Oradel; Recording Sec-

retary, Mrs. C. D. Cropsey, Rutherford; Corresponding Secretary, Mrs. C. N. Dezer, Englewood; Treasurer, Mrs. H. M. Kenyon, Bergenfield.

Our guest speaker, Mrs. John Nevin (State President) was a pleasant addition.

Essex County

Reported by Mrs. Richard M. Rogers

The meeting of October 27 was held, as usual, at the Nurse's Home of the Newark City Hospital. Mrs. Theodore Teimer, Recording Secretary, read the minutes of the May meeting, and Mrs. Charles Rich, the Treasurer, made her report.

In the absence of Mrs. Don Epler, Chairman of the Committee on Public Health, the Secretary read a letter from Mrs. Ethel C. Taneyhill, Field Secretary to the State Medical Society, outlining the proposed lecture program for the year.

Mrs. George A. Rogers, Chairman of the Committee on Child Welfare, reported on the lecture courses now being sponsored by the organization in coöperation with the Y. W. C. A. Although the registration for the course intended for the training of new mothers has been too small as yet to warrant starting classes, the committee does not feel discouraged but feels that sufficient publicity will bring out large numbers of applicants in time. The organization was gratified to hear that L. Bamberger & Co. has offered to supply the equipment necessary for this course. The matter of printing circulars that could be used, in a permanent form, for this course was taken up and it was decided to make available a sufficient number to carry on the work of publicity so long as the committee thought it advisable.

Mrs. Richard M. Rogers asked for the support of all members in the sale of tickets for the course of lectures to start November 3 for mothers, fathers and teachers of adolescent children. The course covers 5 lectures as follows: November 3, lecture by Bruce B. Robinson, M.D., Director of Child Guidance in the Public Schools of Newark; December 1, Ernest R. Groves, Ph. D., Director of the Institute for Research in Social Science, University of North Carolina; January 5, 1931, Sidonie M. Gruenberg, Director of the Child Study Association of America; February 2, Frank Howard Richardson, M.D., Specialist in Child Psychology and author of "Parenthood and the Newer Psychology"; March 2, Julius Levy, M.D., Director of the Division of Child Hygiene, Newark Department of Health.

Mrs. Van Ness gave a short résumé of the work accomplished during the year and thanked heartily all members who had coöperated in forwarding the very extensive program of work which she had so very well organized. She thanked especially her Executive Board for its enthusiastic support of her and the work. She then turned the chair over to Mrs. G. A. Rogers to conduct the election.

The nominees presented by Mrs. H. J. F. Wallhauser, as Chairman of the Nominating Committee were elected as follows: President, Mrs. H. Roy Van Ness; First Vice-President, Mrs. F. G. Shaul (who is virtually President-Elect according to the new constitution); Second Vice-President, Mrs. Don A. Epler; Recording Secretary, Mrs. Theodore Teimer; Treasurer, Mrs. Charles Rich.

Mrs. Van Ness resumed the chair and announced the reappointment of Mrs. F. C. Weber as Corresponding Secretary.

Mrs. Teimer gave a short report of the Annual Meeting at Atlantic City at which meeting our

Mrs. Van Ness was made President-Elect of the State Society Auxiliary. She stated that Dr. Edward III urged the cooperation of the women in getting the doctors to join the Society for the Relief of Widows and Orphans of Physicians, and spoke briefly of the wonderful work done by this organization.

In the new constitution a Council of 6 was created to serve with the Executive Board, 4 of whom were to be selected by the President and 2 elected by the organization. Mrs. Van Ness appointed Mrs. Chas. Schneider, Mrs. J. H. Brothers, Mrs. Richard M. Rogers, and Mrs. Linn Emerson, and the organization elected Mrs. H. J. F. Wallhauser and Mrs. A. S. Harden, to serve on this Council.

Mrs. Harry Commando gave a report for the Committee on Hygeia. Last year the commission on subscription was allowed to anyone subscribing through the organization but it was decided that this year such commissions will be given to the Scholarship Fund. A slip to that effect is to be mailed through the County Medical Society to all of its members.

Mrs. S. H. Jessurun, Chairman of the Committee for the Scholarship Fund announced plans for a bridge party to be held Monday, November 24. Volunteers to work with her committee for this card party brought a large response.

After the business meeting refreshments were served by the Social Committee, which gave time for the members to meet each other and get better acquainted.

Gloucester County

Reported by Mrs. Henry B. Diverty

The Woman's Auxiliary to the Gloucester County Medical Society met at the time of the county medical society, Thursday, October 16, at the home of our President, Mrs. Elwood E. Downs. Of the 28 members, a good representation was present.

Delegates to the State Convention attended and gave a fine report. All committees reported progress. At the Annual Social Session in September, the auxiliary attended to the decorations.

The auxiliary prefers the social type of work. A get-together luncheon was planned for November.

After the meeting, a dainty collation was served, and a delightful social hour was enjoyed by all.

Union County

Reported by Mrs. Russell A. Shirreffs

The fourth annual meeting of the Woman's Auxiliary to the Union County Medical Society was held October 8 in the Nurses' Home of the General Hospital. Officers were elected. They are:

President, Mrs. Harry V. Hubbard, of Plainfield; President-Elect, Mrs. Harold Corbusier, of Plainfield; First Vice-President, Mrs. Norman Currie, of Plainfield; Second Vice-President, Mrs. George Orton, of Rahway; Secretary, Mrs. Russell A. Shirreffs, of Elizabeth; Treasurer, Mrs. D. R. McElhinney, of Elizabeth; directors for 3 years, Mrs. George Laird, of Westfield; Mrs. Charles H. Schlichter, of Elizabeth, and Mrs. J. E. Runnells, of Scotch Plains.

Annual reports were read and plans for the year were discussed. Refreshments were served in the company of members of the County Medical Society.

County Society Reports

ATLANTIC COUNTY

John Irvin, M.D., Reporter

The monthly meeting of the Atlantic County Medical Society was held in the Blue Room of Chalfonte Hotel, October 10, with Dr. Homer I. Silvers presiding. There were 130 in attendance, including 90 graduate and undergraduate nurses from the Atlantic City Hospital.

Dr. John S. Irvin read the minutes of the previous meeting. A letter was read from Dr. Stewart in which the Island Fertilizer Company extended an invitation to the society to visit the reduction plan on Crab Island.

Dr. William E. Darnall, reporting for the Library Committee, said that 40-50 volumes had been added to the medical library. Every week new books are coming in, many of which are of great importance.

The membership application of Dr. Berenda C. Weinberg was referred to the Board of Censors.

A communication was read from the Boy Scouts of America, requesting the usual contribution, and it was voted that the society subscribe \$10.

Dr. Silvers spoke about the Credit Service Bureau, and was desirous of having the head of the bureau come and speak to the society about a plan whereby people who have failed to pay their medical bills would be listed in a book. It was moved and seconded that a committee of 3 be appointed to meet with the Credit Rating Bureau.

Dr. Samuel Salasin distributed health bulletins and asked for comments in writing; to show how the medical profession would receive such monthly bulletins on health problems.

Dr. Edward Strecker, Professor of Mental and Nervous Diseases of Jefferson Medical College, spoke on "The Psychology of the Normal Child", saying in part:

"It has always been difficult for me to understand why parents expect a child to grow up without mental care, and yet wouldn't expect him to grow up without physical attention. The child is not expected to grow physically of its own accord. It is exactly true, as it is on the physical side, that the child can't find in its mental environment things that it needs. We are not clear on what it does need to grow mentally, but we are beginning to know something about it. When I talk about psychology of children, I am talking about a child placed in a certain environment on this earth and needing to find certain things. The first of these things is probably something we have not thought of particularly—physical motion. The definite right that every child should have to move about freely. This is so important, that on the physical side the child does not complete its neurologic growth until the end of the second year. If a child had everything else it needed in plenitude, everything that one could think of, but was denied the right to move about, it would remain an imbecile.

You may have heard mothers and teachers boast that their children were good children:

that they were quiet; if they were placed in a certain position they would remain there. Psychologically speaking, a quiet child is never a good child. There is something emotionally missing, which he can never get later in life.

The second thing a child should get is probably the most important and most potent—imitation. It is so important that one's ability to speak one's native tongue is probably the result of imitation. A child hears certain noises made which sound outlandish to him. These noises are repeated. Certain actions are connected with these noises. After the noises are repeated a certain number of times, then he imitates. Watch a group of children at natural play—not games that are supplied—but games played from their natural resources. Playing house, one child is father, one is mother and the rest are children, and you will note a most exact imitation of what the parents do. You can notice the inflection of their voices, their gestures, and so forth. It should be very instructive for parents to watch their children. If you expect a child's personality to develop you must see that he is given reasonably good things to imitate. They can imitate things that are not so good. No child can be greater than its environment. The next great thing that a child should be able to extract from the environment is the thing that it reads in the faces of adults; the subtle form of imitation. For instance, a child who was quite young cut her finger without any apparent pain, and the child ran to her nurse and said, "See finger all jammy", with a pleased expression on her face. Then the child began to scream and howl. What had happened? The child had read horror, fear and surprise in the face of the nurse, and took the suggestion that this was not such a pleasant thing after all. That is suggestibility.

The mother who says to a stranger in the presence of a child, who has stumbled while carrying a cup of tea, 'Isn't it too bad Betty is so nervous, just like her father', immediately suggests nervousness to Betty, and thereafter Betty will always act nervous in the presence of strangers.

I saw a very interesting case in my own office. A boy who was cyanotic was brought to me by his mother, breathing about 40 to 50 per minute. I asked him why he was doing that, and he answered between breaths, 'If I don't, I won't get enough air into my lungs and then I will die'. I spoke to his mother, who was a college graduate and an intelligent woman. Before this little boy was allowed to go out to play he was carefully inspected as to the matter of clothing and given a lecture about the various dangers of which we all warn children. Besides this he was given other directions, such as, 'don't play too roughly, don't catch cold, don't wet your feet, don't run too hard'. This boy was perfectly normal. After much persuasion his mother finally consented to send him to an old fashioned Quaker boarding school just outside of Philadelphia. After a month at the school, she didn't know whether to be distressed or not because he was usually the dirtiest boy in the playground. Think of what would have happened to this child had the condition been allowed to continue at

home. The moral about suggestion is very simple. It is just as easy to suggest good useful things to a child—like courage, health, fair fighting—as ill health, disease and cowardice, which will be of very little use in the battle of life.

Now there is another thing that is very important. It has a high sounding name, but is very simple—love of power. That is why there is an age for retirement of college professors, otherwise they would never want to relinquish their power. It is true of adults, so it must be true of children. There is nothing more powerful than a baby. All normal people like babies and want to do everything in their power to make life comfortable for the baby. Babies learn that by crying they can very often succeed in gaining their goal. No normal child ever relinquished that power without great difficulty. Sometimes it is a tragedy when these children must make concessions and learn that there is such a thing as property rights. Some of the chief nervous conditions in children have this particular cause.

More perfectly normal children have been ruined during convalescence from an illness than at any other time. This is perfectly natural, as the child has been very ill, has had severe discomfort and pain, and we all want to make up to the child for what he has suffered. It is worth remembering during convalescence to be reasonable about the treatment accorded to the child.

Curiosity. Why any child should be curious has been a source of much wonderment to some parents, and they evolve the theory that it is abnormal. Why, science is nothing but applied curiosity. The real dyed-in-the-wool scientist isn't interested in helping the human race and in saving human lives; he is frantically curious, and that is why we have electric lights, radio, etc. Children are tremendously curious. The education of the child is acquired in the home in the answering of questions and directing the child to the proper source of information. You cannot convince some parents that there is nothing abnormal about sex curiosity. They think it is a terrible thing. There could be no more conclusive sign of normality in a child than sex curiosity. Sex is very possibly the most dominant of our instincts and it is really inborn in the child. We have clothed sex in so much mystery, and so hidden it that the child has become curious about it. It is the law of nature. The experience in the average child's routine, when coming in contact with people engaged in a sex conversation, is 'hush'. The child knows and realizes that here is something interesting to talk about. There isn't any choice between giving children sex information and not giving it to them. There is a choice between giving the child that information in a perfectly normal way or letting him get it outside. A very large class of neurotics may be traced back to sex. A question asked by a great many parents is, 'What shall I tell my child about sex and how shall I tell it?' It is more important than the removal of tonsils for the happiness of the child. Pub-

lic lectures are pernicious. Children are self-conscious. The attitude in the home should be very normal. The parents should answer in a fine way. The practice of neurologists would be reduced to a considerable extent, if children were sanely informed in childhood.

Savagery is a normal phase in the development of the child. The boy comes to the age when he wants to go West and kill Indians; the girl when she tells tales that would do credit to a novelist. This is important because mothers hate savagery. When the boy prefers the company of his dog to the company of his father, it gives him an opportunity to learn about nature. It builds up physical reserve. It teaches the boy competition—how to fight. Some school systems think it would be a good idea to do away with competition in the schools; to do away with prizes. It is all right if you are preparing a child for an ideal world, but it isn't the kind of world the child is going to find. This is the same world where there is still the struggle for existence. If he wants to be successful in life he must fight and he must want to win or he will never win. So, to abolish competition seems the wrong psychologic principle. He should be taught to fight, but to fight fairly."

DISCUSSION

Dr. D. Ward Scanlan said that he was sorry that there were not more general practitioners present to hear Dr. Strecker. Just as an illustration that the general practitioner does not always know how to handle a case from the psychologic view point, he cited the following case: A young girl, aged 16, was brought to his office because she had been crying continuously for 3 months. She had been to see many doctors, who had filled her with bromides, sedatives, etc., but had not been able to make her stop crying. He spoke to her, and finally elicited the following information: This girl had gone to a speak-easy with a fellow, and then had refused to accompany him to a room, and he had kicked her out. Her sweetheart heard the story, and called her a "bum". Dr. Scanlan told her she did not need any medicine, and upon proper advice she stopped crying, went to work, and has been well since.

Dr. Cole Davis said that he had come in contact with a great many people who swore by Dr. Strecker, never at him. He went on to say that in the Mental Hygiene clinic here he treated more parents than children, as in treating the parents he was treating the child. He said that it amuses him to hear physicians say that they know nothing of psychology, because when they think they are applying common sense to a cancerous patient, for instance, they are really using psychology. Doctors perhaps know more about human psychology than any other persons in any other walk of life.

Dr. D. J. M. Miller said it behooves each doctor to go into the field of psychology. Dr. Strecker spoke about the quiet child being called the "good" child by mothers and teachers. It was illustrated in the story of George III who was called a good, quiet child, and he went through life being good, quiet and stupid. Hector Cameron's book on "The Nervous Child" should be read by all doctors. A very instructive book on sex for children was also recommended—"How We Grow Up".

Dr. Samuel Salasin said he was speaking as a

father, and not as a physician, and that he was beginning to see his deficiencies in the mode of raising children, after hearing Dr. Strecker talk. This subject of child hygiene is now being brought to the minds of the public, but there is much confusion caused by conflicting statements published.

Dr. Clarence L. Andrews said the child recapitulates the race. If you know what a child does you know how old he is. An early tendency a child has is to run away. There is no use worrying about that child's future. He is a normal child. Another early tendency is for a child to dig. The next tendency is to climb everything, from a chair to a tree. Let him alone and he will let that phase of his life pass. He goes on, and you send him to the store, and he will give his sister the package to bring home, and he will do nothing. He is like his ancestors, who made the women do the chief part of the work, while they looked on giving instructions. The same child later will button up his coat and fight to protect his sister. He is again reverting back to type, when the savages fought to protect their women from their foes. One who doesn't appreciate that phase of childhood won't understand, of course.

Dr. L. M. Walker said in the treatment of enuresis today psychologic methods are being used effectively with children.

Dr. Samuel F. Gorson said it is important to emphasize one of the points in Dr. Strecker's address; namely environment. Parents are prone to blame a great deal on heredity. Dr. Saxe of New York has written a very instructive book on the subject entitled, "The Normal Child, Its Mind and Its Morals". The last chapter in the book is a tirade against psycho-analysis.

Staff Meeting of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The stated monthly meeting of the Atlantic City Hospital Staff was held September 26. The meeting was called to order at 8.30 p. m. by the President, Dr. David B. Allman.

Presentation of the scientific program was postponed until the following month.

Dr. Samuel Salasin, Health Officer of Atlantic City, spoke on the subject of rabies vaccination of dogs. He stated that rabies is a real menace in New Jersey and has increased among dogs 300% in 3 years. If steps are not taken to prevent its spread among dogs there will inevitably be human cases.

Dr. Samuel Barbash presented the following motion (which was later adopted): Whereas, the Health Officer of Atlantic City is endeavoring to protect the health of the community, by the prevention of rabies in the community. And, whereas, the Staff of the Atlantic City Hospital feels that the passing of such an ordinance is for the best interest of the people of Atlantic City. Be it resolved that the Commissioners of Atlantic City be urged to pass an ordinance that all licensed dogs be vaccinated against rabies and that all unlicensed dogs be disposed of.

Dr. William J. Carrington stated that a friend wished to present an artificial respirator to the hospital.

Arrangements were made for the annual staff outing October 8, 1930.

A rating of interns is to be instituted which will be based on their professional behavior and scientific interest in the various departments, and their attendance at the Staff meetings.

Dr. Robert A. Kilduffe reported the acquisition of several pathologic specimens for the museum.

CAMDEN COUNTY

Robert S. Gamon, M.D., Reporter.

The Annual Meeting of the Camden County Society was held Tuesday, October 7, at 9 p. m., under J. E. L. Van Sciver, the retiring President. The report of the Nominating Committee was presented and accepted, the following officials being duly elected:

President, Wesley J. Barrett; Vice-President, E. G. Hummell; Secretary, B. F. Buzby; Treasurer, T. K. Lewis; Reporter, R. S. Gamon; Historian, D. J. Bentley, Jr.; Censor, J. E. L. Van Sciver; Trustee, T. B. Lee; Member Nominating Committee of State Society, A. H. Lippincott.

Dr. J. E. L. Van Sciver gave the annual address, the subject of which was "Medical History of Camden County".

The President-Elect, Dr. Wesley J. Barrett, being ill and confined to his home, was unable to accept the chair. In his stead Dr. E. G. Hummell presided for the remainder of the meeting.

The annual report of the Treasurer showed the finances of the society in excellent condition. The Historian reports that he has compiled the histories of the present members of the Camden County Society and that they will shortly be in printed form.

The new Constitution and By-Laws adopted at the May meeting are now on the press, and will be ready for mailing to members in good standing within the month.

O. R. Carlander, M.D., of 1972 Browning Road, Merchantville, New Jersey, was elected to membership in the society.

There were 35 members present.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The annual meeting of the Cumberland County Medical Society was held at the Hotel Cumberland October 14. Dr. E. H. Van Deusen, the President, conducted the annual election of officers. Dr. C. S. Franckle, of Millville, was elected President; Dr. Reba Lloyd, Bridgeton, Vice-President; Dr. H. H. Wilson, Bridgeton, Treasurer; Dr. E. C. Lyon, Secretary; Board of Censors, Drs. Charles M. Gray, M. F. Sewall, H. S. Branin; Delegates to the State Medical Society, Drs. Dare Woodruff, C. P. Lummis and S. T. Day.

Dr. M. H. Bockroch, of Philadelphia, read a paper on "Cerebrospinal Syphilis." He said the dividing lines of former classifications are passing away. The second chapter in the history of the disease began with discovery of the spirochete. The World War was responsible for a large increase of the malady. All forms should show a plus Wasserman in the blood: 100% in the first

stage; 70% in the second; and 50% in the later stages. He emphasized use of the flash light in examining the pupils. Discovery of an Argyl-Robertson pupil is positive proof of involvement of the central nervous system. While the arsenicals are indispensable, the consensus of opinion is that there has been an increase in the nerve sequels. Mercury and Donovan's solution still have their place in medication.

Dr. Harry Lowenburg, of Philadelphia, spoke on "Practical Pediatrics". He especially emphasized the use of evaporated milk as meeting more of the food needs of the infant than any other form of artificial food. It is sterile, easily obtained and transported. Changes caused by the evaporating process make it more nearly a substitute for the mother's milk than anything else. Its caloric value is uniform and may be modified to meet the individual's condition without changing to another kind of food. In case of gastric disturbance he is not favorable to castor oil. Change the food from one causing fermentation to one causing putrefaction. To supply the missing vitamin, orange juice or tomato may be given. He prefers Creta preparata as an astringent correction with other combinations. Over-feeding may cause loss of weight and diarrhea. In case of intoxication examine ears, tonsils, and kidneys.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

The 115th annual meeting of the Essex County Medical Society was held Thursday, October 9, in the Ball Room of the Washington Restaurant, Newark, following a dinner that had been planned by the Council. The plan was new in the history of the society, the dinner taking the place of the collation formerly served at the conclusion of the annual meeting. The Dinner Committee consisted of Drs. J. H. Lowrey, Chairman, J. I. Fort, W. H. Areson, Thomas H. Harvey, Jr., and Edgar A. Ill. The great success of the combined dinner and business meeting can be realized from the fact that it was attended by 354 members, which is exactly 50% of the number in good standing on the day of the meeting. The President of the Medical Society of New Jersey, Dr. George N. J. Sommer, and the Editor of the Journal, Dr. Henry O. Reik, were present, and Dr. Whitehorne, of Verona, the oldest practitioner in this county, received an ovation. At the conclusion of the dinner the members of the committee were asked to rise and by enthusiastic vote were unanimously thanked for their successful work on this occasion.

The business meeting was called to order by President Arthur W. Bingham. Upon motion, duly seconded and carried, reading of the minutes of the last annual meeting, 1929, was dispensed with.

Dr. Pinneo, reporting for the Council, read a letter received by the society from Director William J. Egan in which he asked the society to assist the Police Department in detection of criminals by reporting, immediately after treatment, all wounds the doctors suspect to be the result of criminal acts. The following resolution was recommended by the Council.

Resolved: Whereas the Department of Public Safety of the City of Newark, "in order to facili-

tate the work of the Police Department in the detection of criminals" has officially requested "the coöperation and assistance of the members of the medical profession";

Therefore, the Essex County Medical Society, being the organized medical profession here, willingly states for public information its ethical standard in this matter, to wit;

When a member of this society upon examining any injured person finds reason for suspicion that the injury may be the result of a criminal act, or is of such nature as is not naturally due to ordinary causes, he will report the case to the Police Department immediately. This is not surrender of a physician's freedom of judgment nor of personal privilege toward a patient but part of that duty which a doctor owes to society, like reporting contagious diseases. The same coöperation from the superintendents of the hospitals, we believe, may be expected. Furthermore, the Department of Public Safety, Mr. William J. Egan, Director, has agreed that "such reports will be considered confidential and will not be made public nor used in evidence without consent of the person making the report".

On motion, duly seconded and carried, this resolution was unanimously adopted.

Reports of Committees: For the Committee on Necrology, the report of Dr. McEwen, Chairman, was read by Dr. Tarbell. Twelve members have died during the year, of which 4 had been presidents of the county society: William C. Fischer, September 4, 1929; Morgan D. Hughes, Oct. 23; William H. Martland, Nov. 11; Edward Staehlin, Dec. 10; John N. Bassin, Dec. 1929; Irving J. Rath, Jan. 25, 1930; Frederick S. Bootay, Feb. 13; Sanford J. Ferris, Feb. 16; Charles D. Bennett, May 11; Walter C. Liebman, May 16; Walter S. Washington, May 23; Henry W. Nolte, August 6.

In memory of the deceased, the members stood in silence for one minute.

For the Committee on Illegal Practitioners, Dr. Lowrey, Chairman, made a lengthy and comprehensive report of activities, investigating complaints against illegal practitioners, and reports thereon received from the State Board of Medical Examiners. This exceptional report of active work was received with marked interest.

For the Committee on Ethics, Dr. Barkhorn reported for Dr. Danzis. This committee has functioned exceptionally well under the new method. The method of summoning the culprit and explaining to him the seriousness of his practices, has proved satisfactory. All this, with kind words has, in the majority of cases, brought forth a promise to do better. A little judicious reprimanding will cover all these cases, and the committee will continue to do just this sort of work.

The Committee on Medical Education and Hospital Activities had continued the plan of publication in the Health Department Bulletin, activities of all the hospitals open to the profession. There was no report from the Milk Commission, Dr. Wherry being ill. For the Maternal Welfare Commission, Dr. Carl Ill made a report, outlining a series of lectures to be offered in January; fee \$10. Dr. Bingham made a few supplementary remarks regarding the lectures, stating that they are to be given in Newark, and urging support by the doctors. The Committee on Radio Broadcasting made no report, but, Dr. Connolly, for the Committee on Diphtheria Prevention, reported a series of 15 minute afternoon talks on "Diph-

theria Immunization" given in June through the courtesy of the management of WOR. These were announced in the name of the society only, volunteered by Drs. E. LeRoy Wood, Byron J. Smith, Elmer G. Wherry and R. Hunter Scott. The talks were well given and one has been selected for publication in the Bulletin of the Newark Health Department. For the Special Fund Committee, Dr. Rogers reported that it has invested \$1000 in Fidelity Union Trust Company, 5½ % Bond and Mortgage, and put \$1000 in the Howard Savings Institution. This Special Fund is derived from the special assessment, voted in 1924, and accrued interest, and is to be used as reserve for legal purposes in time of special need.

The Committee on Revision of Constitution and By-Laws, Dr. Kraker, Chairman, reported a completely new Constitution and By-Laws, which embodied the best in the old, last printed in 1907, and the amendments adopted since, all made to harmonize with present methods of procedure. Its reading was interrupted by a motion, duly seconded and carried, that the society hereby adopt the revised Constitution and By-Laws as prepared by the committee and recommended by the Council, with leave to print and circulate.

Dr. Rogers read his Treasurer's Report. On his recommendation it was voted that the assessment for dues for 1931 be \$20. The Auditors, Drs. B. A. Furman, and W. H. Glass, reported the Treasurer's books entirely correct.

Replying to critical remarks by Dr. A. J. Mitchell, of the amount for the State Society, Dr. J. B. Morrison, Secretary, at the request of the President, responded with an analytic statement of expenses, showing that the members of the State Society receive full benefits in returns through medical education of the public. He pointed out that the State Journal has become one of the 3 leading state medical journals of the country, and the offering of original articles is so great that there is a long waiting list. The insurance opportunities given the members on professional liability, health and accident, and automobile insurance, are effective as long as the doctor is a member in good standing. Other state societies consider our budget a reasonable one and some have written in to us for a copy of it. This very interesting explanation cleared up the doubt in the minds of some of the members regarding the benefits derived from membership in the State Society.

The tellers for the election of new members, Drs. Olcott, Blanchard and Wakeley, reported the following list of 18 members elected unanimously: William Clinton Calvert, 226 N. Park St., E. Orange; Henry Francis Coffin, 433 Mt. Prospect Ave., Newark; Royal H. Fowler, 9 Clinton St., Newark; Stanley C. Hall, 249 Bloomfield Ave., Caldwell; T. S. Heineken, 15 Woodland Ave., Glen Ridge; John Earl Kiley, 31 Lincoln Park, Newark; Milton M. Lilien, 162 Grumman Ave., Newark; Lewis Henry Loeser, 31 Lincoln Park, Newark; Herman P. Miller, 585 Elizabeth Ave., Newark; Carl L. Minier, 178 Chancellor Ave., Newark; Pasquale E. Nappi, 254 Clifton Ave., Newark; Grace T. Newman, 339 Grove St., Montclair; Charles R. Price, 834 Kearny Ave., Arlington; Lardner Moore Shannon, 66 S. Fullerton Ave., Montclair; Fred L. Somers, 108 High St., Orange; Jos. C. Spallone, 123 Mt. Prospect Ave., Newark; Edward J. Van Gieson, 17 Park Place, Bloomfield; Lawritz S. Ylvisaker, Prudential Ins. Co., Newark.

The polls for the election of officers had been opened from 7.30 p.m. till 10 p.m. The tellers, Drs. R. N. Connolly, Charles M. Evans, E. P. Cardwell, and Herbert A. Schulte, reported the following men elected: President, Henry C. Barkhorn; Vice-President, James H. Lowrey; Secretary, Frank W. Pinneo; Treasurer, Robert H. Rogers; Councilors, H. Roy Van Ness, John F. Condon, Anthony C. Zehnder and Daniel L. McCormick. The following Delegates to the State Society were elected: George Blackburne, Wm. D. Crecca, Richard D. Freeman, Joseph W. Hurff, Edgar A. Ill, Henry B. Orton, Wm. O'G. Quimby, B. B. Ransom, Erwin Reissman, Robert H. Rogers, Edwin Steiner, W. A. Tansey, H. Roy, VanNess, A. C. Zehnder, E. LeRoy Wood and E. A. Snively.

The following were elected Alternate Delegates: Richard J. Brown, Herman Cohn, Jos. L. Fewsmith, Benj. A. Furman, Thos. W. Harvey, Jr.; Harvey T. Herold, Paul Keller, Clymont MacArthur, George V. Morse, Raymond J. Mullin, George P. Olcott, Herbert A. Schulte, J. W. Siegel, E. H. Willan.

The President nominated for Reporter Dr. E. LeRoy Wood, who was unanimously elected.

On behalf of the Woman's Auxiliary, the President announced the courses which are to be given at the Y. W. C. A., starting next month, on Parent Training and the Adolescent Child.

Essex County Medical Society*

President's Address

Arthur W. Bingham, M.D., F.A.C.S.,
East Orange, N. J.

It has indeed been a great honor and privilege to have served as your president. Words fail me in attempting to express my appreciation. It has also been a pleasure to have had this opportunity to get better acquainted with my fellow practitioners. What little has been accomplished during the past year is due to the faithful work of the Council and various committees and I take this opportunity to thank these men for their loyal coöperation and support.

After practicing medicine a number of years, one gets certain ideas regarding the medical profession. With your indulgence I shall mention briefly a few that have come to me.

In the practice of medicine we often get inspiration for our work from the lives of those who have been leaders in the profession. A biography which is full of inspiration and should be read by every physician is Cushing's "Life of Wm. Osler". Osler said of himself: "I started in life with just an ordinary every-day stock of brains. In my school days, I was much more bent upon mischief than upon books but as soon as I got interested in medicine I had only a single idea: to do the day's work that was before me just as faithfully and honestly and energetically as was in my power." This he did to the day of his death. I know of no better rule to follow.

I believe every physician should practice gen-

eral medicine for a few years at least. By doing so he will get a broader conception of his work and realize that there is a human as well as a scientific side to the practice of medicine. To quote Dr. Lewellys Barker: "Through the development of specialism both doctors and patients have become somewhat over-interested in local organs and processes, and have lost sight of the human organism as a whole. They think too much of diseases and too little of sick men and women. Anyone familiar with the psychoneuroses and the minor psychoses knows how many operations some of these patients undergo in the hope of restoring a feeling of well-being and efficiency, through attack upon some single organ by a specialist in that domain. Psychiatry is doing something to help in this connection, but the general profession and the great public are, at the moment, so under the spell of specialism and of localistic as contrasted with synthetic diagnosis that it will, I fear be long before the abuses can be corrected. Meanwhile, quackery and charlatany are likely to flourish, for often their representative knows better how to influence the personality of a patient than do some regular practitioners of medicine."

After practicing general medicine for a time one may choose a branch of medicine for which he seems to be best suited, unless he prefers to continue in general practice. Group medicine will appeal to some, and if properly carried out has some advantages, but the independent practitioner will always be in demand. As years pass he should regulate his work that he may have more time to spend on advisory boards of hospitals, welfare organizations, and other community activities, and thus round out his life of service. How long he should continue to practice is a question. The majority of physicians keep on till the end, for they love their work and their work is life. * * * As Osler said: "Happiness lies in some vocation that satisfies the soul, for we are here to add what we can to, not to get what we can from, life."

Considerable attention is being given to the "cost of medical care". As you know, the committee of which Dr. Ray Lyman Wilbur is chairman has been studying this problem for 3 years and will continue for 2 more before making a final report. It seems to me there are 3 factors to be considered: the hospital, the patient, and the doctor. They are each partly to blame for the high cost of medical care. The hospital's blame consists in not being organized so as to take care of more patients without private nurses. If there were more floor nurses many patients would not require special nurses and even if a slightly higher rate were charged there would result a saving to the patient. Almost any hospital can take care of a patient if he has 2 special nurses but the hospital to be commended is the one which can properly care for the average patient without extra nurses. Special nurses are needed in many cases, but not to the extent they are now used in the average hospital. This is especially true in maternity work, where, if the maternity department is isolated special nurses are rarely needed for more than a day or a night. Of course, if complications arise a special nurse may be called when necessary.

The patient is partly to blame as he goes to a hospital and insists on one of the best rooms and 1 or 2 special nurses, and keeps them throughout his stay. This is probably sometimes done to keep up appearances. Then he feels he

*Read at the Annual Meeting of the Essex County Medical Society, October 9, 1930.

should have all the latest scientific aids and insists on having radiographs, blood tests, etc., regardless of the need of them, and when it is all over he is unable to pay the bill. Only recently it required considerable argument to convince a patient that she did not need an x-ray picture to determine the location of a cyst which could be easily felt by palpation. Another patient, when 3 months pregnant, wished to have a radiograph to determine the sex of the child.

Dr. Wilbur states: "Another conspicuous weakness is the extensive employment of inferior types of treatment. Millions of people accept the service of chiropractors, osteopaths, and christian scientists; and of various irregular practitioners. The training of these practitioners manifestly does not make it possible for them to utilize the knowledge which modern scientific medicine has made available."

The doctor is somewhat to blame, not for charging the patient a fair fee but for often allowing his patient to have unnecessary nurses and needless tests made. He might differentiate his cases more and use special nurses with some and not with others. The habit of having every patient go through a routine procedure of all laboratory tests adds greatly to the expense and might be avoided if the physician only would examine the patient more thoroughly. These laboratory tests are most valuable when properly used but many are unnecessary in the average case. Patients frequently have radiographs taken to determine the existence of pregnancy in the early months. The patients, and apparently some doctors, do not know that a positive diagnosis of pregnancy can seldom be made by x-rays under 3 or 4 months. Let us guide our patients more intelligently regarding what nursing service they require and what laboratory tests are necessary, and thus do our bit toward reduction of the cost of medical care.

We are told that to succeed today the medical profession should organize, not in order to put over something on the public but to protect ourselves and to maintain the high standards of the practice of medicine. We are organized but *the organization is not supported as it should be*. We have the county medical society, which is a part of the state medical society, which is a unit in the American Medical Association. The county society deals with organized medicine, and covers various phases of the practice of medicine, such as: ethics of the practitioners, welfare subjects, in fact everything which maintains the standards of the profession. It is our business organization. The Academy of Medicine, while approving the standards set by the County Society, deals more with the scientific side of medicine. It is there that scientific subjects should be discussed, while in the county society the subjects taken up have more to do with the profession as a whole and its relation to the public. What a wonderful organization the Essex County Medical Society would be if it were supported as it ought to be. There are many men practicing medicine in this county who have never joined the county society, and many who are members rarely attend any of the meetings. In my opinion, every legal practitioner of medicine should join this society and after joining take an active part in its affairs. The county society would then become a powerful and highly respected organization which, through its active committees, could easily control the practice of medicine in the county. It would take the leading part in

directing public health activities, instead of acting on suggestions of welfare organizations and women's clubs. Its members would diffuse accurate knowledge regarding medical subjects in the name of the county society over the radio and through the press instead of being called upon to explain various half-truths as depicted by the lay mind. Altogether, it could exert a most beneficial influence for the good of the medical profession and the relief of human ills. The opportunity is ours. Shall we take it?

Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

E. LeRoy Wood, M.D., Secretary

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey held its first meeting after the summer recess, Monday evening, October 13. The Chairman, Dr. J. Wallace Hurff, presided. About 45 members were present.

A very interesting and remarkable address was delivered by Dr. Simon L. Ruskin, of New York, entitled "Headaches and Systemic Disorders of Nasopharyngeal Origin". Dr. Ruskin has been making a special study of the epipharynx, a region that has been greatly neglected. Practically nothing has been written about that area since 1882, when Thornwaldt described the pathology of the pharyngeal bursa and the symptoms produced. Knowledge of the anatomy of the region has been at a standstill since Luschka described it. Dr. Ruskin has substantiated and amplified Thornwaldt's ideas, studying the whole nasopharynx instead of only the pharyngeal bursa. It is his idea that a most important sympathetic nerve center may be controlled by treatment of the mucous membrane of the nasopharynx. Vasomotor disturbances, sensitivity to heat and cold, frontal headache, puffiness of the respiratory mucosa and asthma are due to pathology in that region, a vasomotor center lying at the extreme top of the nasopharynx posterior to the alae of the vomer. Dr. Ruskin expressed the opinion that atrophic rhinitis is due to vasomotor irritation producing a tonic over-action of the vasoconstrictors, resulting in a pale atrophic mucous membrane, poor development of the turbinates, and a secretion so tenacious that it adheres, dries and decomposes where it is secreted. Eradication of the vasomotor irritation or an interruption of the vasoconstriction greatly improves the condition.

Dr. Ruskin showed lantern slides of anatomic sections. In the discussion he said that he did not get much assistance from the nasopharyngoscope because it does not show the posterior wall. A post-nasal mirror is better. Digital palpation is not as valuable to him as probing. He expressed the opinion that vacuum headache is more often due to epipharyngeal pathology.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

At the regular meeting of the Gloucester County Medical Society, held at the Country Club October 11, members had the pleasure of learning from the State Society Secretary, Dr. Morrison, where the money went which was paid into the

state society by them. Dr. Morrison greatly enlightened his listeners in a very interesting discourse.

Dr. Edward W. Weiss, a Jefferson graduate, as the essayist of the evening, spoke extemporaneously on "Hypertensive Cardiovascular Disease". His talk was of unusual interest, and many unusual points were brought out. Dr. Weiss is an associate in pathology and medicine at Jefferson Medical College.

The doctors attending included Dr. Chester Ulmer, Gibbstown; Dr. F. G. Wandell, Clayton; Dr. S. F. Ashcraft, Mullica Hill; Dr. I. W. Knight, Pitman; Dr. H. L. Sinexon, Paulsboro; Dr. R. K. Hollinshed, Westville; Dr. H. W. Stout, Wenonah; Dr. W. J. Burkett, Pitman; Dr. C. C. Sheets, Paulsboro; Dr. Edwin Ristine, Westville; Dr. Dorothy Rogers, Dr. Harry Nelson, Dr. E. E. Downs, Dr. C. A. Bowersox, Dr. Duncan Campbell, Dr. J. H. Underwood, Dr. Paul Pegau and Dr. H. B. Diverty, of Woodbury.

Following the meeting a luncheon was served by Fred Bewkers, the club steward.

HUDSON COUNTY

Harry J. Perlberg, M.D., Secretary

At the Annual Meeting of the Hudson County Medical Society, held October 7, 1930, the following officers were duly elected for the ensuing year: President, John M. Cassidy; Vice-President, William W. Brooke; Secretary, Harry J. Perlberg; Treasurer, Charles B. Kelley; Reporter, Edward G. Waters.

Dr. Allan Craig, of Chicago, addressed the society concerning "Important Points in Safeguarding the Future of Medical Practice", saying, in part:

"We are living in a decade of exceedingly rapid changes in world affairs. Our whole social system has so altered in many of its aspects that we as a medical profession have become disturbed in no small measure and quite uncertain of our future. A socialistic atmosphere is abroad. It has crept into the homes, into both political and industrial life, and we cannot possibly disregard this modern tendency lest we fall into other hands and lose professional identity. Industries and even governments and municipalities have undertaken to practice medicine, both preventive and curative, on a wholesale scale of their own and as best suits their own interests. They care little for the private practitioner of medicine or surgery. Their efforts and expenditures are largely made for the simple reason that it is good business to keep employees from becoming ill and to get them well as quickly as possible if they are disabled. Governments and industries have little human sentiment in their make-up. Right there is a great opportunity for the private practitioner and organized medicine. Our people are still very much human beings and every human being appreciates personal attention and judicious sympathy in the solution of his physical problems. There is no doubt but that a large percentage of folks are willing to pay for personal attention, for kindness and for the right to choose their own doctors, but of course with these they also have a right to demand skill, sound judgment and good advice. No matter how sound a doctor's scientific knowledge and skill may be, if he is lacking in personality and in

human understanding he is almost sure to be a failure in private practice.

The greatest problem before the medical profession today is not scientific problem; it is social and political. We are facing a choice between internal and external control of professional service to our people. If internal conduct and control in the medical profession will fully meet its varied responsibilities, its efficacy will be recognized; but should it break down through selfishness, disorganization or lack of progressive vision, there is little doubt but that we shall lose a large part, if not all, of our professional identity."

Dr. Craig closed his address with an appeal to general practitioners that they energetically support the campaign for periodic health examinations and other movements in the field of preventive medicine and that there be a constant and progressive action by organized medicine toward leadership in all public welfare movements.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Reporter

The regular meeting of the Clinical Conference of the Bayonne Hospital was held Monday evening, Oct. 6, at 9.40 p. m., Dr. Sexsmith acting as chairman until Dr. Donohoe arrived. Dr. Maurice Shapiro, Secretary.

Dr. Chayes reported from the service of Dr. Sexsmith a rare case of "Osteomyelitis of the Symphysis Pubis", probably of tuberculous nature. He had first seen this man in 1925 for T. B. involving the left apex. In June, 1930, he was admitted with a history of 3 weeks illness, swelling of the left groin, which he treated himself and which had opened of its own accord. Examination at that time revealed a small hard mass of the left groin with sinus draining pus freely. While in the hospital he developed large abscess over the right thigh. The pus was cultured and no tubercule bacilli found but many staphylococci. Urologist injected the sinus over the right side with sodium iodide and x-rays revealed that the sinus led to the symphysis pubis, Wassermann and Kahn tests were negative. At the present time x-rays show destruction of both pubic bones, involving the joint.

Dr. Fifer reported on the service of Dr. Sexsmith.

Case 1. C.L., age 43, admitted on Sept. 10, 1930, with history of acute illness for 2 days. She was taken with very severe pain in her abdomen, consulted her physician and was relieved for one day, but the pain returned and was localized in the right upper quadrant. Nauseated during the entire attack but did not vomit at any time. History of constipation for several months back. Temperature at time of admission was 100.4°; a leukocyte count of 22,300, with 92% polys and 8% lymphocytes. Urine showed a very faint trace of albumin but was otherwise negative.

There was moderate rigidity throughout abdomen. The patient was operated upon that same afternoon. Gall-bladder was found to be very friable and its wall markedly hypertrophied, and about 200 c.c. of clear serous fluid was aspirated from the peritoneal cavity. The gall-bladder was then aspirated and 2 large stones removed. A

routine cholecystostomy was performed. Four days later she became jaundiced, probably due to blocking of drainage. Tube removed 6 days post-operative, and wound found to be infected and completely broken down. There was no biliary drainage, but a thick grayish foul smelling discharge. Carrel-Dakin treatment was instituted and in a few days the infection cleared up.

Case 2. C. T., age 24, colored, female, first admitted to the hospital on August 17, 1930, gave a history of pain in abdomen, beginning 4 days previously. The pain was most intense in the right upper quadrant, and radiated to the back and shoulder. Temperature on admission was 100°, but dropped to normal the following day and remained so until discharged. Cholecystitis was diagnosed and under appropriate medical treatment permitted discharge free of all symptoms 1 week after admission. One month later she was readmitted with temperature of 100° and severe pain in right upper quadrant, radiating to back and right shoulder, 2 weeks' duration. Exquisite tenderness over the gall-bladder area. At operation the gall-bladder was found markedly distended and adherent to surrounding tissues, and 20 to 30 small stones were removed. A routine cholecystostomy was performed and the patient is apparently doing well.

Case 3. Mrs. W. M., age 69, admitted Sept. 6, 1930, on medical service, with history of severe pain throughout her abdomen of about 2 weeks' duration. Accompanying this pain there was dizziness and a general feeling of weakness. The pain in the abdomen was most intense in the right upper quadrant, and would at times radiate up the shoulder. Patient was habitually constipated, and on 2 occasions prior to entrance into the hospital vomited after eating. Percussion of the liver disclosed that organ to be enlarged downward and laterally. Her skin was somewhat discolored by an icteric tint. Placed on soft diet with continuous catharsis. Her symptoms became less severe on this treatment. X-ray examination of the gall-bladder failed to visualize that organ; no evidence of lithiasis was discernible. Consultation was had at this time and it was decided to operate.

Gall-bladder was found markedly distended and filled with thick greenish fluid. Five large stones were removed from the gall-bladder proper. No evidence of any pathology was discernible in the common duct. A routine cholecystostomy was performed. She is draining considerable bile and is apparently having an uneventful recovery.

Dr. Frank reported a case of Koehler disease. Child, 7 years of age, chief complaint, pain over the right arch of the foot. Diagnosis was made of weakened arch. X-rays revealed a remarkably thin and flattened scaphoid. This condition is an osteochondritis of the scaphoid; the cause is problematic. Koehler reported the first case in 1908, but 125 cases have been reported since.

Dr. Wolfe reported from the service of Dr. Woodruff.

Case 1. Mrs. S., white, female, age 32, married, admitted July 7, stated that she has been in perfect health prior to 8 years ago, at which time had a severe attack of pain over her right kidney. The attack lasted a few months, soon passed off, and she had not experienced any similar affair until 2 years ago. Since last attack she had been continually troubled with more of a discomfort than severe pain, so she could not sit in one

place very long. A noticeable feature has been the absence of frequency, dysuria and hematuria.

A flat x-ray of the kidneys, bladder and ureters revealed numerous large sized calculi present in both kidneys.

Operation performed on the ninth of July with the object of removing the calculi from the right kidney. She made an uneventful recovery and a subsequent radiogram indicated complete absence of stones in the right kidney.

Case 2. Miss F., white female, admitted July 31, complaining of sharp cutting pains in the right postrenal area, with frequency of urination. Pulmonary tuberculosis 4 years ago, but at the time of her discharge from Laurel Hill, where she had been a patient for 6 months, she had regained 15 lb., her night sweats and hemoptysis had ceased. During the interval till April of this year she had been free from symptoms. However, around April she began having severe sharp knife-like pains over her back, more particularly in the region of the right kidney. The pain did not radiate along the course of the ureter nor down the thigh; also complained of frequency, slight dysuria with no urgency nor hematuria.

Cystoscopy showed both ureteral orifices normal in location but having large openings, the right resembling the golf-hole type characteristic of tuberculosis.

The patient developed high temperature, rapid pulse, but did not complain of pain nor discomfort. She was kept in bed and given intensive course of hydrotherapy and eliminative treatment.

Radiograph showed left kidney enlarged, lower pole extending to transverse process of the fourth lumbar vertebra; pyelogram showed kidney pelvis and calyces enlarged, and varying density suggesting T. B. process or pyonephrosis.

On September 26 patient was given a spinal anesthesia, and a lumbar extraperitoneal incision was made for removal of the left kidney. There were marked adhesions to the prerenal fascia. The kidney was markedly enlarged and discolored with multiple cortical areas, indicating abscesses. The kidney pedicle could not be reached and a puncture through theortex was made and frank pus aspirated. The pedicle was then tied and cut separately from the ureter. The kidney bed was irrigated with normal saline and the layers of the wall closed in order leaving a cigarette drain. Examination of the kidney showed definite tuberculosis.

Dr. Morgenstein reported from the service of Dr. Weiss 2 cases of "Diabetes Mellitus", 2 cases of "Lobar Pneumonia" and 1 case of "Cerebral Meningitis".

Dr. Ferenzi reported a case of "Pellagra". L. S., colored female, age 44, was admitted June 19, with the general complaint of eruptions of hands and feet; anorexia, burning in the mouth, and general body weakness and diarrhea. In February she noticed both fore-arms and hands becoming deeply pigmented. The pigment practically disappeared in a month, and she was free of any complaints until May, when she noticed her arms becoming erythematous and finally vesicular, and scaly. About 2 weeks before admission her throat and mouth became very sore, and dysphagia set in. Her genital and anal regions became very vesicular and moist, causing her extreme pain and discomfort, particularly on defecating. Since May she has complained of sharp shooting pains radiating down her thighs;

the pain was continuous, lasting in a severe state for several hours. These pains disappeared after 3 weeks and were replaced by a feeling of numbness. Anorexia, and slight nausea upon ingestion of any food have been present for the past year. For the past few days the patient has had severe nocturnal diarrhea. Menopause occurred Feb., 1930; no bleeding noticed since that time.

Diagnosis of pellagra, syphilis and uterine fibroids was made, but she became progressively worse despite all measures and died on June 29, 1930.

DISCUSSION

Dr. Seasmith stated that the only case he had seen was 10 years ago in which the woman has never been out of town and in which there had been no indiscretion in diet. Case had been placed in the plastic line of pellagra.

Dr. Shapiro stated that he had seen this case in consultation with *Dr. Ferenczi* and it was a typical third stage pellagra. She was moribund on admission and he advised intensive diet and injections of arsenic.

Dr. Wolfe who had been in practice in Texas, stated that they got better results from the use of iron, arsenic and 15 drops of diluted hydrochloric acid than they did from diet.

Dr. Seasmith reported that there were no deaths on the service last month and no infections.

Clinical Society North Hudson Hospital

J. Africano, M.D., Reporter

The regular monthly meeting was held Wednesday, October 3, with *Dr. Arthur Justin* acting as chairman. *Dr. Tannert* read the hospital report for September, 1930: 231 admissions; 262 discharges; 12 deaths, of which 6 were medical, 4 surgical, 1 gynecologic, 1 new-born; 555 cases treated in the various clinics. *Dr. Klaus* announced that the Board of Directors had cordially invited the entire staff to attend a dinner at the Arrowhead Inn, Union City, at 9 p. m., on Oct. 22. *Dr. Allen Craig* will speak on "Hospital Organization and Activities".

FRACTURE-DISLOCATION OF HEAD OF THE HUMERUS Dr. Eckert

There are 3 main sites of fracture of the proximal end of the humerus where one must resort to open operation; the surgical and anatomic necks and the epiphysis. Simple fractures may occur in one of these sites, or if the fracture is comminuted it may occur in all three. Treatment depends upon the amount of displacement of the head of the humerus. Where there is very little or no displacement, or where there is an impaction with good alignment, careful restraint of the upper extremity by means of a sling or a swathe will suffice. In fracture of the surgical neck, where alignment is possible traction and countertraction with proper splints may bring the fragments in good position. Epiphyseal fractures occur most commonly in youth, since there is no unity between the epiphysis and diaphysis until the age of 25. All measures, open and closed, must be resorted to in order to reduce a fracture of this type as the true arm length is involved in its correction.

Case Report. A. M., male, white, aged 68, night watchman, fell and injured his left shoulder on Aug. 8, 1930. Examination revealed a swelling and ecchymosis about the left shoulder region,

severe pain on movement, and limitation of motion in all directions. Radiograph showed a spiral fracture involving both humeral necks with dislocation of the head downward and rotated. Attempts at reduction and replacement proved unsuccessful and open operation was decided upon. While waiting for the swelling to recede, the patient had a rise in temperature, and his pulse increased and became intermittent. A cough developed and chest signs indicated an incipient bronchopneumonia. Nothing was done surgically to alleviate the fracture as the condition of the patient precluded any manipulation or operation. He was then transferred to the medical service for treatment and continued there until his release on October 1.

Assuming the patient had been in condition for operation, what course of procedure would have been most appropriate and efficacious? Doubtless reposition and replacement would have given him a good functioning arm. Removal of the head would have been the easier and quicker procedure but according to the radiogram some of the shaft would have been lost and the arm might not have been as serviceable.

DISCUSSION

Dr. Sweeney stated that the case offered quite a problem as to treatment, and finally the conservative method was chosen; the patient at present has no pains or paralysis, but is unable to move the arm.

Dr. Klaus agreed that the non-operative method was the one of choice; had the patient been younger, the treatment would have been a radical open operation, either pegging the head, or removing it.

Dr. Kuhlmann pointed out certain mechanic and anatomic difficulties met with in the treatment of fractures of the surgical and anatomic necks, either of which may be of 3 varieties: with the head of humerus in the glenoid cavity of the scapula, and the remainder of the shaft below it; or, the reverse of this, with the head below the glenoid cavity and the shaft above; or, both the fragment and the shaft below the glenoid cavity. There is not only the mechanic displacement to be considered, but also the invariable paralysis of the deltoid muscle, especially in elderly patients where it is often permanent, and also reaction of the surrounding tissues in different individuals according to the individual and his age—while in a younger patient we would always try to get the fragments into anatomic reposition, as he needs the function, and he can stand the operation, in an older individual we have to contend with the painful tension and infiltration of the surrounding tissues due in part to callus formation, which interferes with proper function even though the fragments are properly replaced. Is excision of the head the right thing? No, because when the head of the humerus is shortened a huge space is created which will produce a flail shoulder, on account of the fact that the normal fulcrum is lost for contraction of the muscles about the joint; disability results from the mechanic displacement.

Dr. Klaus and *Dr. Lange* were inclined to believe that an arthrodesis was somewhat radical, especially inasmuch as this would occur anyway, following an open operation, or it could be done later if necessary.

Dr. Kuhlmann stated that this patient would have a lot of trouble, as even if it be perfectly reduced it will become partially ankylosed, with resultant disability.

NEPHRITIS WITH UREMIA SYMPTOMS

Dr. Pearlstein

R. C., male, age 43, policeman, entered hospital on Sept. 7, 1930, with the chief complaints of headache, vertigo, flakes of light before his eyes, vomiting, eructations of gas, oliguria, nocturia, insomnia and chills. Family history irrelevant. Past history negative. Onset 4 weeks previously, when he had chills, fever, frontal headaches, vertigo and vomiting. This began suddenly one morning at about 5 a. m. This syndrome continued until Sept. 6 at about midnight, when patient was seized with a severe chill and lapsed into unconsciousness. He was admitted on the next day.

Physical examination on admission was negative except for an accentuated pulmonary second sound at the base of the heart. Urinalysis; sp. gr. 1.010; albumin, heavy trace; few W.B.C. and R.B.C. and bacteria. Blood pressure on admission was 178/84; roped to 130/90 and then ranged around 166/100, after patient was allowed out of bed. Temperature ranged between 98.2 and 99.8°; on discharge temp. was 98.8°. Pulse ranged between 80-100. Phenolsulphophthalein test showed no excretion of the dye in 2 hours. Mosenthal test showed fixity, the sp. gr. varying between 1.007-1.010. Wasserman and Kahn tests negative. Blood culture negative. X-ray of chest showed enlarged heart with increased lung markings and dilated bronchioles.

Patient was put on a low-protein diet, salt-poor, high hot colonic irrigation twice a day, with hot packs every 4 hours night and day. This did not make patient perspire, so that a cradle with electric lamps and blankets was substituted. This did not produce any diaphoresis, so pilocarpin nitrate gr. 1/6 every 4 hours was given, resulting in a profuse diaphoresis. Phlebotomy was done and 400 c.c. of blood removed. Fluids were forced by mouth and by hypodermoclysis; glucose, 50 c.c. of 50% solution was given intravenously for its diuretic effect.

Patient was discharged from the hospital with blood chemistry of NPN 190 and creatinin 7.5 (reduced from 480 and 9.4.) Blood pressure reduced and symptoms alleviated.

Our patient, while in the hospital, did not present definite symptoms of uremia but instead had occasional hallucinations, which is another expression of uremic intoxication. Urea cannot be taken entirely as indicative of the extent of kidney damage.

CHOLECYSTITIS AND CHOLELITHIASIS

Dr. Lange

J.L., age 59, Austrian, housewife; admitted July 22, had been operated upon in March, 1930, for gall-stones; at which time the gall-bladder was removed without difficulty. Exploration of ducts by palpation was done but no stones in the common duct discovered. Pathologist's report of specimen: Subacute cholecystitis and cholelithiasis. Patient made an uneventful recovery and was discharged April 3.

About a month after being discharged from hospital, patient began to have abdominal pain radiating upward to shoulder and accompanied by vomiting as before the operation. These attacks occurred about every 2 weeks. However, in between attacks she feared to eat as this had the tendency to bring on pain and vomiting. No hematemesis; never jaundiced. Lost about 15 lb. since operation.

Definite tenderness beneath the right ninth costal cartilage and in the epigastrium.

Operation July 23. The great omentum was found slung up over the pylorus and across the first part of the duodenum to the region of the gall-bladder fossa, causing evident pressure upon these parts. The duodenum was adherent to the hepatic flexure of the colon and the pylorus and first part of the duodenum lifted up and adherent to the fossa in the omentum. The common duct was thick, about $\frac{3}{4}$ inch wide. A stone was present, about the size of a large pea, in the retro-duodenal part of the common duct and above the ampulla. The bile was thick, dark-green and viscid. The stone was removed, the common duct drained with a very small catheter. The gall-bladder fossa drained with cigarette drains. Temperature for about 1 week ranged between 99° and 103°. At the end of the second week it continued normal. The tube came out at the end of 3 weeks; for another week bile continued to drain and since then the wound has closed. Since discharge on Aug. 24, patient has not had any attacks of pain or vomiting.

The case illustrates: (1) The difficulty of palpating stones in the common duct in stout patients. (2) Stones can be present in the common duct without jaundice.

BILIARY FISTULA

Dr. Klaus

M.M., female, age 37, Italian, housewife; admitted May 11, with pain in upper abdomen and belching. Illness began about 4 years ago with pain in epigastrium and right hypochondrium; intermittent and lasted 15-30 minutes. About 3 years ago she had a hysterectomy in this hospital. Indications for the operation were pain in the right lower quadrant and profuse vaginal bleeding. For about 9 months following operation, she felt well and was symptom-free. Then the pains in the right upper quadrant and epigastrium reappeared, and have persisted to date of admission. Tenderness in epigastrium and right lower quadrant and over the incision.

Diagnosis, chronic cholecystitis. X-ray examination of gall-bladder and G-I series had been done by private physician, and the report was entirely negative except for gastroptosis.

Operation on May 16: Cholecystectomy. The omentum was adherent to the anterior abdominal wall and to the pelvis. Uterus, adnexa and appendix had been removed in previous operation. Gall-bladder thickened, adhesions around it; no stones in it or in the ducts. Stomach normal. Pathologist's report of the specimen confirmed the clinical diagnosis.

For the first 4 days following operation, the temperature varied 100.4° to 98.6°. No distention; occasional vomiting. Five days after operation there was a profuse drainage of bile into the dressing. Up to this time there had been no evidence of bile on the dressing since operation and it would appear as though the ligature on the cystic duct had come off.

Last examination Sept. 15, 1930—patient entirely well except for some occasional pain in the right upper quadrant.

INTRA-ABDOMINAL TUMOR

Dr. Barasch

C. K., male, age 57, painter, born in Austria; entered the hospital Sept. 2, with a history of having been ill for 3 weeks and complaining of

vomiting, paroxysmal pain in the right upper quadrant, radiating to the back and to the right shoulder, putty-colored stools, dark-green urine, progressively increasing jaundice, loss of weight and weakness.

On examination, the patient was markedly jaundiced and emaciated. Teeth in poor condition; tongue moist and coated. Heart and lungs negative. Abdomen: soft, no distention; no masses felt; liver palpable just below the costal margin; liver edge smooth. Some resistance and tenderness present in R. U. Q.

Tentative diagnosis: Carcinoma of head of pancreas, common duct stone, or catarrhal icterus. Three days later, examination revealed a hard mass 3 fingers' breadth above the umbilicus, irregular in outline, and at this time laparotomy was advised.

Laparotomy revealed a mass about 6x4x3 in. behind the stomach; hard, nodular and surrounding the common duct. The gall-bladder was bound down by many adhesions which after separation revealed a large distended gall-bladder containing no stones. Cholecyst-gastrostomy was done, a Murphy button being used. Operation was done with considerable difficulty because of immobility of the gall-bladder and thinness of its walls. At the site of the anastomosis 2 flaps of omentum were sutured. Postoperative course was rather stormy. There was considerable vomiting for about 1 week, undoubtedly due to the altered gastric physiology, and daily gastric lavage was necessary. Temp. ranged between 100-103.6°, and was due partly to the phlebitis which developed following the intravenous injection of calcium chloride, and partly due to emaciation resulting from the malignancy.

At time of discharge on Sept. 30, 1930, the abdominal wound was healing, patient was not vomiting very much, was free of pain, the jaundice had disappeared, but the cachexia and emaciation were progressing.

DISCUSSION

Dr. Klaus stated that biliary fistula was a serious condition due to many causes, like injury or stone in the common duct; he cited 2 cases to substantiate these facts; the common duct is injured more frequently than is thought, but if recognized immediately and sutured, recovery follows. Especially in acute gall-bladders it is difficult to feel deeply for stones in the common duct. *Dr. Sweeney* also cited a case of biliary fistula that drained for 1 year; on reoperation it was found that the cystic duct had dilated so much that it resembled another gall-bladder, containing a stone as large as a walnut; therefore a "second cholecystectomy" was performed. *Dr. Pearlstein* felt a mass which he thought might be pancreas, before suggesting exploratory laparotomy; the history of pain was misleading, as carcinoma of the pancreas usually is attended with painless jaundice; the temperature might be explained on the basis of a degenerating malignancy. *Dr. Tannert* said jaundice may be absent with stone in the common duct and is present when secondary cholangitis and edema of the pancreas causes pressure on the duct.

PREMATURE SEPARATION OF PLACENTA

Dr. Fisher

Mrs. E.W., white, aged 34, para 1; last menstruation Oct. 5, 1929; date of expectancy July 11, 1930. The patient was in excellent health dur-

ing her entire gestation period. The urine was negative to albumin except for a faint trace 4 days prior to admission. Blood pressure varied between 116/60 and 122/71. Measurements normal. Introitus small.

Twenty-four hours before admission the patient fainted, was put to bed and slept all night. On the following morning she complained of weakness and had a slight bloody vaginal discharge; no pain. Examination showed a good pulse; fundus of uterus 2 fingers below the xiphoid cartilage; fetal heart sounds heard. Vaginal examination revealed a hard undilated cervix; no engagement of the presenting part. Patient was kept in bed and morphin given, as she refused to go to the hospital. During the afternoon her pulse became weak and rapid; she was cyanotic and very weak and bleeding slightly from the vagina. Auscultation showed absence of fetal heart sounds; vaginal examination revealed a hard, undilated cervix. Patient was hospitalized immediately.

The patient was seen by Dr. Lange and immediate delivery decided upon to empty the uterus and check the hemorrhage. Cesarean section was performed under local anesthesia and patient delivered of a dead fetus. Glucose, 500 c.c. of 5% solution, was given intravenously during the operation and 800 c.c. whole blood given immediately after operation. On the third day postoperative, patient had a chill and the temperature ranged between 102° and 106°. There was slight distention and some tenderness over the lower abdomen. No rigidity. Lochia scant. Cervix inspected and appeared open; there was a bright bloody discharge without fetid odor; culture taken showed streptococcus. For the next 5 days, the temperature ranged between 103° and 100°; during this time there was no vomiting, very little distention, normal bowel movement and passage of flatus. There was increasing tenderness over the left lower quadrant. On the eighth day, there was considerable tenderness in the L. L. Q., and upon pressure a moderate amount of foul mucopus exuded from the vagina, and a diagnosis of intraperitoneal abscess connected with the incision was made. Vaginal douches of 1:3000 potassium permanganate were given daily and patient's temperature dropped to normal on the twelfth day and remained so until discharge on Aug. 2, 1930. Small daily transfusions of whole blood were given daily for the first 12 days.

Ten days after discharge patient complained of a pain over the lower abdomen. On examination there was considerable tenderness over the lower end of the abdominal incision. On opening scar, approximately 2 oz. foul smelling, greenish pus exuded. Drainage cleared this up in 1 week. The patient is at present well and strong.

DISCUSSION

Dr. D'Acerno stated that from the symptoms and from the operative findings there is no doubt that the case was one of abruptio placentae; however, one must not be under the impression that this condition requires necessarily the occurrence of trauma, as is generally believed. The most common factors in the etiology are lues, placentitis, toxemias, and infarcts. He was inclined to believe that the abscess was retroperitoneal rather than intraperitoneal, as in the latter case it would cause

a general peritonitis, however, when the cervix became insufficient for drainage, the pus found its way out by the abdominal incision, as the locus minoris resistentiae. Regarding treatment, if this patient had been hospitalized early, i.e. before the signs of external bleeding appeared, induction of labor with Voorhees' bags would have given better results and the patient would have not been exsanguinated.

Dr. Tartaryan cited a personal case seen last year—a multipara, with severe external hemorrhage, but with fair general condition; after injection of pituitrin the cervix dilated and the delivery was spontaneous; the cord was found to be short. A sudden hydramnios may also cause premature separation of the placenta. The pathologic findings seem to be toxemic in origin in the form of fatty degeneration of the placenta, so that it separates quicker than usual.

Dr. Kooperman cited a case which he delivered with forceps with the head and the placenta delivered together; bleeding was stopped with pituitrin; the cord was also prolapsed.

Dr. Fischer reviewed the indications for using cesarean section; in this case Voorhees' bag could not be used as the patient had a small introitus.

HUNTERDON COUNTY

Barclay S. Fuhrmann, M.D., Reporter

The Annual Meeting of the Hunterdon County Component Medical Society was held at Flemington October 21. The meeting was called to order by the President, and in absence of the secretary Dr. L. T. Salmon was appointed secretary pro-tem.

The following were present: A. L. Gramsch, A. H. Coleman, W. E. McCorkle, E. W. Closson, L. C. Williams, G. B. Tompkins, S. B. English, I. T. Topkins, E. W. Lane, L. T. Salmon, M. L. Leaver and L. A. Hamilton. The minutes of the July meeting were read and approved.

The treasurer reported that the expenses incurred in erecting the tablet in memory of Dr. O. H. Sproul, and in providing dinners at society meetings had depleted the treasury and that he was without funds.

The application for membership of Feivel O. Slavutsky, M.D., of Glen Gardner, was received and referred to the censors.

Election of officers resulted as follows: President, C. G. Boyer; First Vice-President, I. T. Topkins; Second Vice-President, W. E. McCorkle; Treasurer, E. W. Closson; Secretary, B. S. Fuhrmann; Delegate to State Society for 3 years, S. B. English; Alternate, E. W. Lane; Member of Nominating Committee of State Society, S. B. English; Alternate, A. H. Coleman.

There had been no regular program arranged and one of our famous round-table discussions ensued. Two cases of cancer were reported as having been apparently checked by the use of iodine. Errors in diagnosis by laboratory section brought forth numerous reports and great stress was placed on the uncertainty of this method. Several cases of chronic diarrhea were reported as having been cured by the use of "Bemax". Fractures and obstetrics came in for their share of discussion, as all present had something to say about these important subjects.

At 1 p. m. the society adjourned to the Union Hotel for dinner.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Society opened up with a large attendance, following the summer recess, on October 8. Through the efforts of the Program Committee, the N. J. State Department of Health arranged a very entertaining evening. Dr. A. J. Casselman, Medical Consultant of the Bureau of Venereal Disease Control, addressed the meeting on "A Demonstration of the Methods of Administering the Newer Drugs for the Treatment of Syphilis, including Bismuth Compounds of Arsphenamin, Arsanilic Acid, and Stovarsol in Solution and in Oil". Diagnostic methods with a demonstration of the dark-field examination for spirochetes were some of the features on the program.

The Department sent notices of the meeting, which was held in the lecture room of the Nurses' Home at Mercer Hospital, to the members of Burlington County Society and a splendid representation accepted and remained for the late supper, which was served in the dining hall, as the guests of the hospital.

Dr. Raymond Wing, of Lawrenceville, was elected an Associate Member of the Society, and the application of Dr. Jas. Lewis Blanton was referred to the Membership Committee.

The Memorial Committee presented resolutions on the death of Dr. Joseph L. Gariss, which, after being read, were accepted by a rising vote, and the motion carried that a copy be sent to the family. (See obituary section of Journal.)

The usual committee was authorized to arrange for the Annual Banquet, to be held in November.

MIDDLESEX COUNTY

Wm. C. Wilentz, M.D., Reporter

The Middlesex County Medical Society held its regular monthly meeting at the Perth Amboy City Hospital on October 15 with Dr. Brown presiding. There was an attendance of about 30 men. The minutes of the previous meeting were read by the secretary and accepted.

The Membership Committee recommended the following men for membership: Dr. Bouden, of Cranbury; Millard Ervin, of Matawan; Dr. Fine, of Perth Amboy; Dr. Goldberg, of Dunellen; and Drs. Falcone, Cooper and Howell, of New Brunswick. These were elected unanimously by the society, on Dr. McCormick's motion.

The speaker of the afternoon was Dr. John F. Hagerty, of Newark, who spoke on "Clinical Observations in Diseases of the Thyroid Gland". Dr. Hagerty presented about 10 patients whom he had recently operated upon for various thyroid disorders. He likewise illustrated his talk with lantern slides, and this was one of the most enjoyable and instructive lectures that has ever been presented to this society. A motion was made thanking Dr. Hagerty for his paper. A lengthy and most interesting discussion took place following the talk.

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of the Rutgers Club was held on Friday evening, October 17, at the Elks' Club. Dr. William Klein presiding.

There being no business to transact, the speaker of the evening was immediately introduced. Dr. M. Pomerans, of the Hospital for Joint Diseases, New York, gave a most interesting and instructive talk on "Diseases of the Hip Joint in Children".

After the meeting entertainment was provided by Drs. Applegate, Brody, Brown and Cronk.

MONMOUTH COUNTY

D. F. Featherston, M.D., Secretary

The October meeting of the Monmouth County Medical Society was held in the Berkeley-Carteret Hotel on October 22, with Vice-President, Dr. William K. Campbell presiding. The minutes of the previous meeting were read and accepted. Correspondence was read and ordered filed.

No action was taken on the letter which was sent to the State Society by Miss Evelyn T. Walker, Secretary of the Monmouth County Organization for Social Service, asking for the establishment of a minimum fee for toxin-antitoxin inoculations in poor families.

The paper of the evening entitled "Indications of Cesarean Section," was read by Dr. T. Burns, of New York. The talk was accompanied by motion pictures illustrating the technic of the Latzo Cesarean Section. The paper was well received and provoked interesting discussion.

A buffet lunch was served.

Dr. Applegate Honored at Englishtown

(Report submitted upon request by
W. L. Wilbur, M.D.)

Dr. Asher T. Applegate of Englishtown, who has practiced medicine for nearly 60 years in Englishtown and vicinity, was signally honored on Sunday afternoon, October 5. Dr. Applegate is 84 years old.

A magnificent silver loving cup was presented to him by his friends in recognition of his long and faithful services to the community, in the Englishtown High School Auditorium, which was beautifully adorned with flowers and greens.

Practically the entire country-side turned out and the auditorium was crowded by those anxious to gain admission to the exercises, many being turned away as they were unable to enter the building.

The entire affair was most interesting. A splendid program of music was rendered by a male chorus of twenty voices from Freehold and a formidable array of speakers took part. Former Governor A. Harry Moore presented the loving cup. Other speakers were Dr. W. L. Wilbur of Hightstown, who spoke as a brother physician and a strong personal friend and admirer; Judge Rufus V. Lawrence of Freehold, representing the judiciary; former Congressman Elmer H. Geran, as a personal friend; County Clerk Joseph McDermott of Freehold, representing the official life of Monmouth County. A. V. Dawes of Hightstown, a life-long friend, presided.

Dr. Applegate responded to the presentation in a fitting manner, though almost overcome with emotion, thanking his friends for the appreciation and great kindness.

When Englishtown became a borough, Dr. Applegate was made its Mayor and has retained the distinction to the present time. He is a director of the First National Bank of Englishtown and is still hale and hearty and in the active practice of his profession.

The town was gaily decorated with flags and bunting for the occasion. It was a great day for the doctor, for Englishtown and for all those who were present. The impress of the occasion will remain for many years to come.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

The annual meeting of the Morris County Medical Society was held the evening of Thursday, September 25, at the New Jersey State Hospital at Greystone Park.

President Collins presided over a gathering of about 35 members and guests, including in the latter the more recently appointed members of the State Hospital medical staff, Secretary Morrison of the State Society and Councilor Beling.

Secretary Lathrope read the minutes of previous regular and special meetings and the proceedings of the Executive Committee, the latter indicating 2 special meetings to be held this year, one in November and another later on; also referring to a letter received from the Librarian of Morristown Library commending the society on the fine collection of medical magazines on file at the library.

Treasurer Emory made a favorable financial report, with a balance of something over \$1300 and out of a membership of 83 only 5 members with unpaid dues.

President Collins called upon Secretary Lathrope for a report and the secretary complied, stating that it was the first time since he had been secretary he had ever made a report at the annual meeting, chiefly because in the past no one ever asked him to do so. He gave a very interesting résumé of the society's activities, running back to its original foundation 114 years ago, the first meeting having been held June 11, 1816; that while this was the 114th anniversary of the society it was the 100th annual meeting because of an hiatus in the society's activities resulting in its reorganization in 1873; that of the reorganization members numbering 16 only 1 survives, Dr. Frederick W. Owens; and giving a résumé of the attendance at meetings during the past year, of which there were 4 regular and 4 special meetings; the regular meetings averaging an attendance of 32 and the special meetings 37, from a total membership of 85; and indicating that 25% took no part beyond their dues. Also presenting many other items of real interest.

President Collins observed that we all owe a debt of gratitude to Dr. Lathrope for the excellent work he has done as secretary of the society.

Dr. Larson, for the Library Committee, reported that in continuing subscriptions to the Journals and having them bound volume by volume, we are acquiring what will be a very valuable reference library.

Dr. George Mitchell, of Hackettstown, was proposed for membership and the application referred to the Credentials Committee.

Election of officers for the current year resulted unanimously as follows: President, E. Blair Stuphen; Vice-President, Fletcher I. Krauss; Treasurer, George B. Emory; Secretary, Albert J. Ward; Reporter, Marcus A. Curry; Historian, Henry W. Kice. Councillor Members Executive Committee: L. A. Collins, F. H. Pinckney, L. E. Williams. House of Delegates State Society for 3 years, B. C. McMahon; alternate, Wm. J. Wolfe.

By action duly and unanimously taken the dues for the current year were fixed at \$20 per member.

Secretary Morrison, of the State Society, and District Councillor Beling both responded to invitations of the President to address the meeting. Morrison gave a very illuminating account of the activities of the State Society and its outstanding progress during the past few years; during which time the State Society has risen from comparative obscurity to one of the ranking societies of the country, and dwelling upon the excellent merits of the Journal under the able editorship of Dr. Reik; also stressing the work and results of the Field Secretary Mrs. Taneyhill; detailing just how the dues of the members to the State Society are spent and the benefits accruing. Secretary Morrison's interesting account was a stimulant to his hearers and could not but make them realize keenly what is being done in such a fine manner through the State Society and the Journal for the medical men of New Jersey, to further to the highest point their aims and aspirations. Great interest was exhibited in his lucid account and much appreciation manifested.

Retiring President Collins read a paper which he characterized as a digression from the usual President's Address, but which covered in an easy-to-grasp way the methods and treatments now in vogue at the New Jersey State Hospital at Greystone Park, of which he is a Senior Resident Physician and Major Surgeon. The address embraced the expansion of construction during the past few years, and at present, and carried his listeners step by step through the regimen of care and treatments the patients receive in the light of present day applied psychiatry, both medical and surgical, together with allied agencies such as hydrotherapy, electrotherapy, occupational therapy, physical education, etc. The paper received a very attentive welcome and the conclusion prolonged applause. (Submitted for publication in the Journal.)

At the conclusion of the formal meeting the members and guests adjourned to the cafeteria where they were served with delightful refreshments.

PASSAIC COUNTY

Francis W. Ash, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held at the Health Centre at 9 p. m. on Thursday, October 9. The meeting was called to order by the President, Dr. J. P. Morrill.

The minutes of the September meeting were approved as read, following which a case was presented by Dr. L. G. Shapiro. The case was

a liver abscess which had been formerly treated by emetin with some improvement. An abscess had formed lately; this was aspirated and emetin (gr. 1) was given. The man is now well and strong.

The application of Drs. W. M. Cantrell and H. W. Laawie were read and referred to the Board of Censors.

The Treasurer, Dr. Giambra, read the list of delinquents and also presented his annual report, which follows:

Treasurer's Report Oct. 21, 1929, to Oct. 9, 1930

Balance audited Oct. 21, 1929	\$ 257.14
Received from 200 paid members ..	4000.00
Checks outstanding	141.13

Total \$4398.27

Disbursements from Oct. 21, 1929	3748.27
Balance Oct. 9, 1930	650.00

Sinking Fund Report

Cash on hand Dec., 1930	\$1429.45
Deposited for 19 initiation fees	95.00
Interest to June, 1930	56.42

Balance as per pass book \$1580.00

Dr. Roemer moved that a vote of thanks be extended Dr. Giambra for his services as treasurer. Motion was carried.

Dr. Morrill, as a member of the Executive Council of the Society, reported that the dues for the following year would be \$20.

Dr. Gueyer, of Valley View, was introduced as a guest; Drs. Kowalski and Cantrell also being introduced.

The Annual Address was made by the President, Dr. J. P. Morrill. He thanked the society for its excellent support during the year; he said he had hoped at the opening of the year to hold the meetings at the hospitals and thus pave the way for the establishment of clinical centers at these institutions. He hoped the idea would bear fruit in the future, and congratulated the society on the acquaintance it had gained during the past year with state institutions. He also spoke of his interest in the work of the Welfare Committee of the State Society, and particularly of its interest in legislative matters, in which he himself promised to retain an active interest. In connection with this matter he told how the members of the Assembly from Passaic County, after promising the committee from the Medical Society not to act without their knowledge upon the Osteopathic Bill, all voted in favor of it.

Following Dr. Morrill's report, the report of the nominating committee was read and accepted. The committee proposed the following names. President, John H. Carlisle; First Vice-President, Jacob Roemer; Second Vice-President, J. V. Bergin; Board of Censors, J. P. Morrill; Secretary, Wayne W. Hall; Treasurer, L. Taber; State Society Nominating Committee, H. H. Lucas; Delegates to State Society, 3 years, Ryan, Brevoort, Cogan, Shapiro, Ash.

The following Alternate Delegates were nominated from the floor: Drs. Nye, Ciccone, Phelps, Lowe, McDonald, Wilkinson, Hall, Taber, DeLucia, Sutherland, Giambra, Gochman, Brooks Leonard. There being no other nominations, all these men were unanimously elected.

A letter of thanks from Mrs. Veenstra was read and a resolution regarding the death of Dr. Warren H. Young was adopted by the Society. (See Obituary Section of Journal.)

SALEM COUNTY

William H. James, M.D., Reporter

The Annual Meeting of the Salem County Medical Society was held at the Memorial Hospital, at Salem, on Wednesday afternoon, October 22, at 2 o'clock.

Dr. L. C. Hummel, of Salem, read a very interesting paper on "Bacteriologic Factors in the Cause of Common Colds".

This paper was thoroughly discussed by those present.

The following officers were elected to serve for the ensuing year: President, Frank L. Perry; Vice-President, L. C. Hummel; Secretary and Treasurer, David W. Green; Reporter, William H. James; Delegates to State Medical Society, R. M. A. Davis, David W. Green and William H. James; Member of Nominating Committee, Frank L. Perry; Alternate, L. C. Hummel.

The next meeting will be held December 10 at the Jeanes Hospital, Fox Chase, Pa.

SOMERSET COUNTY

J. H. Cooper, M.D., Reporter

The Annual Meeting of the Somerset County Medical Society was held at the Raritan Valley Country Club. Our efficient and progressive President, Dr. A. A. Lawton, was in the chair.

The Nominating Committee, consisting of Drs. Stillwell, Flynn and Cooper, presented the nomination slate which was voted and carried as is: President, E. G. Brittain, Bound Brook; Vice-President, Josiah Meigh, Bernardsville; Recording Secretary, Lancelot Ely, Somerville; Treasurer, R. F. Hegeman, Somerville; Censor, A. A. Lawton, Somerville; Reporter, J. L. Young, Somerville; State Delegate (3 years), A. A. Lawton, Somerville.

The members and auxiliary members enjoyed a very delicious dinner provided by the chef of the Raritan Valley Country Club, after which our President, Dr. Lawton, entertained by his witticisms and truths, calling on some of the members of the auxiliary and 4 members of the society. Everybody willingly and cheerfully responded; all of which made a perfect day.

About 28 members and guests were present.

Dr. Ely was again endorsed for Third Vice-President of the State Society.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

A largely attended meeting of the society was held at the Elizabeth General Hospital on the

evening of October 8, with the retiring President, Dr. Harry H. Bowles, of Summit, in the chair. Conforming to long established precedent, he was the essayist of the evening and chose for his topic, "A Few Problems in Medical Ethics". (This paper has been obtained for publication in the Journal.) Honored guests were Dr. J. B. Morrinson, State Society Secretary, and Dr. C. C. Beling, Judicial Councilor for the First District. Cordially welcomed, each gentleman spoke interestingly of the varied activities of the State Society. Treasurer Hoover's annual report showed a comfortable balance of cash and bonds in bank. Our annual dues remain at \$15, all of which goes to the State Society. This, and only one other, county society does not make an extra assessment for current local expenses. With the approach of cold weather, Dr. N. L. Wilson advised publicity of the danger of using metnyl alcohol in automobile radiators, asserting that blindness and death have been known to result from this cause. One resignation was accepted on account of removal; 9 men were proposed for membership and 2 were elected—Drs. Joseph A. Zingales, Cranford, and Willis B. Day, Plainfield. The annual election resulted in the choice of the following physicians: President, Michael Vinciguerra, Elizabeth; Vice-President, Harry V. Hubbard, Plainfield; Secretary, George W. Horre, Elizabeth; Treasurer, Alden Hoover, Elizabeth; reporter, Russell A. Shirrefs, Elizabeth; Censor for 3 years, Chas. H. Schlichter, Elizabeth. Public Health Relations Committee, George T. Banker, Elizabeth; N. W. Currie, Plainfield. Nominating Committee of State Society, Stephen T. Quinn, Elizabeth. Delegates to State Society: John Runnels, Scotch Plains; Geo. T. Banker, Elizabeth; George Laird, Westfield; E. S. Krans, Plainfield; George Orton, Rahway. Alternate Delegates, T. D. Morris, Elmer Weigel and C. B. Honman, of Plainfield; C. A. Brokaw, Emil Stein, Jack Blumberg, Jacob Reiner and Milton A. Saangie, of Elizabeth; Watson Morris, Springfield; G. W. Strickland, Roselle; C. B. Keeney, Summit; Frederick Sell, Rahway; Leslie Leggett, Westfield; Lawrence Beisler, Hillside.

A social session followed at which important national, state and municipal affairs such as vacation trips, golf, "world series" and lobster salad were given due and ample consideration.

WARREN COUNTY

F. A. Shimer, M.D., Reporter

The Annual Meeting of the Warren County Medical Society was held at the Belvidere Hotel, Belvidere, on Tuesday, October 21, at 11 a. m., with Dr. Paul Drake presiding. Routine business was transacted. The following members were present: Bossard, Lyon, Drake, Osmun, Zuck, L. Bloom, Cummings, Smith, LaRiew, McKinstry and Shimer.

The following officers were elected for the en-

suing year: President, Henry B. Bossard; Vice-President, A. C. Zuck; Secretary, L. C. Osmun; Treasurer, G. W. Cummings, Reporter, F. A. Shimer; Delegate (3 years), C. B. Smith; Alternate, G. H. Bloom; Censor, F. McKinstry; L. H. Bloom represents the State Welfare Committee. An Executive Committee, consisting of the officers was temporarily formed.

Dr. George H. Lathrope, of Morristown, read a very interesting paper on "Peptic Ulcer; Etiology, Diagnosis and Treatment". This instructive and educational paper was discussed by all the members present.

A duck dinner serviced in the hotel which was delicious and enjoyed by all who partook of it.

Obituaries

JOY, J. Addison, aged 76, formerly of Atlantic City, died at Easthampton, Mass., on October 24, 1930.

A farmer's son, Dr. Joy was born in the hilly countryside of Peru, Mass., on Oct. 27, 1854, of Turner Joy and Julia Ann Pierce.

The schools of various states gave Dr. Joy his youthful educational training, first begun in the district schools of his native Peru, then continued, after he had reached the age of 11 in the public schools of Greenville, Ill., whither his family moved. After that came the district schools of Toms River, N. J., where his family finally settled and from where, after he had finished his preparatory studies, he was sent to Amherst College, to graduate with honors with class of 1878 with the degree of A. B.

After graduation from college, Dr. Joy followed the occupation of teacher for 3 years prior to his entrance into the University of Pennsylvania's medical department, where he completed his studies and graduated in 1884.

Embarking at once on his career as a medical practitioner, Dr. Joy went into the coal regions of Pennsylvania, to Jeddo, and then to Eckley, spending 6 years in both places pursuing his profession.

He came to Atlantic City in 1890, and began the practice of medicine at 25 South Illinois Avenue, where he remained 4 years. At the expiration of that time he bought the property at 35 South Illinois Avenue and continued his practice from that address. He finally moved to 1920 Pacific Avenue, which place remained his permanent professional and private home for the rest of his life in this city.

RESOLUTIONS ON THE DEATH OF DR. YOUNG

Adopted by the Passaic County Medical Society

On May 9, 1930, Warren H. Young died of a pulmonary embolus at Saint Joseph's Hospital. Dr.

Young had been operated upon 8 days before for a gangrenous appendix and peritonitis.

He was born in Brooklyn, N. Y., in 1876. In 1897 he graduated from Amherst; 3 yr. later, from New York University Medical School. After an internship at Bellevue Hospital he began practice in Little Falls.

Dr. Young was a genial person who made a host of friends within and without the medical profession. He was one of the outstanding men of his community, not only as a physician, but as a citizen interested in civic affairs. Among doctors he was respected by all for his ability as a splendid example of a competent practitioner. He was in himself a refutation of the criticism that the skillful family physician and counsellor is disappearing.

Be it resolved, therefore, that these remarks be incorporated in the minutes of the meeting and that a copy be sent to the family of Dr. Young as an expression of our sincere sympathy.

Thomas A. Dingman, Chm.
James P. Morrill,
Frank W. Ash.

RESOLUTIONS ON THE DEATH OF DR. GARISS

Adopted by the Mercer County Medical Society

God has seen fit, in his infinite mercy, to remove from our midst, after a brief illness, Dr. Joseph L. Gariss, of 34 West State Street, Trenton.

Six weeks preceding the death of Dr. Gariss, while crossing the street near his residence, he was knocked down by an automobile. Two bones in one hand were broken, one elbow was injured, and one kidney ruptured. He was confined to his bed for several days. He continued practice, but was suddenly stricken with uremia, on April 29, and died within 2 days.

Dr. Gariss was born at Belvidere in 1893. He attended the Medico-Chirurgical College of Philadelphia, being graduated in 1914, and continued a postgraduate course in roentgenology. He came to Trenton to practice about 15 years ago.

At the entrance of this country into the World War he enlisted in the medical corps, and served as instructor in the department of roentgenology. He was stationed in the Jefferson Medical College and in Camps Fremont, McClellan and Sheridan. He was discharged in 1919 with the title of Major.

Dr. Gariss was connected with the Mercer Hospital of Trenton and with the New Jersey State Hospital as roentgenologist.

He was a member of the National, State and the Mercer County Medical Societies; the Carteret Club; Column Lodge No. 120, F. & A. M.; and Crescent Temple A. O. M. S. While in college Dr. Gariss was elected a member of the Phi Chi Fraternity.

Dr. Gariss was a man of sterling character, well skilled in his work and loved by his many friends. He is survived by his wife, Mary.

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. III

December, 1930

Number 12

IN slavery days, tuberculosis is said to have been uncommon in the Negro. When he was suddenly freed and thrown on his own resources, deaths from that cause rose steadily. The disease is now about three times as prevalent among Negroes of the United States as among whites. Moreover, the pathology and the course of the disease in the two races are strikingly different. Does the Negro suffer an inherited susceptibility? Has his contact with civilization been too brief to develop the immunity which seems to protect the white race more adequately? Will the handicaps of environment imposed upon the Negro account for the increased prevalence and severity of the disease? Serious searches for satisfying answers are just beginning to be made.

Tuberculosis among Negroes

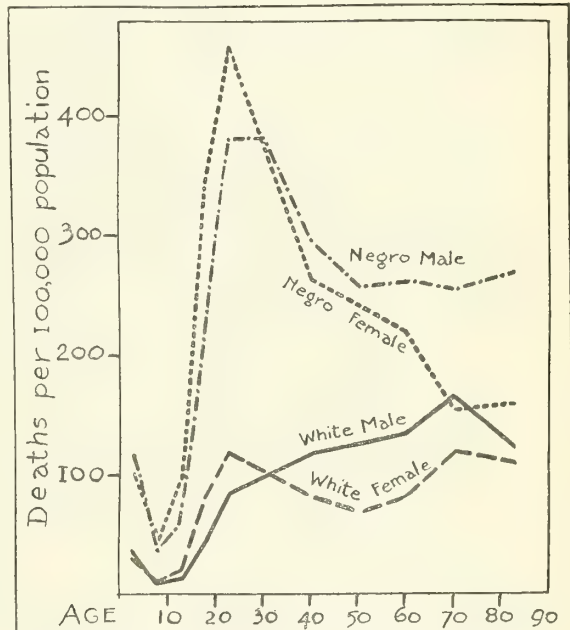
Knowledge of the peculiar character of tuberculosis in the Negro that explains the appalling mortality is defective. Statements concerning the clinical course of tuberculosis in colored people are vague. The suggestion is repeatedly made that there are conspicuous differences between the pathological changes produced by tuberculosis in the American Negro and white people. This conclusion is not warranted by the meager facts at hand. Almost nothing is known about the morbidity of the disease among the colored population or concerning the prevalence of minor but not infrequently grave infections which are the precursors of fatal disease.

Statistical Data in the United States

Among whites, the death rate for all ages is greater for men than for women, while among Negroes the rate is somewhat higher for women. The disease attacks Negro children with far greater severity than white, the ratio of deaths for the two races between birth and fifteen years of age being 1:9.2, but from fifteen up to twenty-five, 1:3.9. The death rate has fallen rapidly in both races since 1911 but somewhat less for colored than for white. The mortality graph for Negroes is that of a disease that begins in adolescence or early adult life and pursues a rapidly fatal course.

Tuberculosis in Africa

The interior of Africa was free from tuberculosis before the advent of the white explorer. Sorel, among others, gives us a glimpse of how the disease was spread. At Bassam on the Ivory Coast, 22.9 per cent of the inhabitants reacted to



Tuberculosis Mortality 1925, U. S. Death Reg. Area of 1920.
—*Proceedings N. T. A., 1930, p. 264, Edgar Sydenstricker.*

tuberculin, whereas at Bornake, 212 miles inland, only 2 per cent reacted. Ziemann found that, among the 80 natives of the highlands adjacent to Bantu, only one reacted to tuberculin and this man had served as a soldier on the coast. Borrel studied French African troops during the World War. Of recently recruited men brought directly from Senegal to the Frejus Camp, only 4 or 5 per cent reacted to tuberculin. The incidence of tuberculosis increased steadily although earnest effort was

made to combat the disease, and the deaths increased from 48 in 1916 to 557 in 1918. The death rate estimated per 100,000 was 624 in 1917 and 1,114 in 1918.

Tuberculosis in Jamaica

Jamaica has a population of about 800,000 Negroes and 15,000 whites. Both races have been in contact for three centuries. The disease is primarily one of cities and spreads to country districts. Dwellings are crowded, and the poorer people are careless in their habits. In the native Jamaican, tuberculosis usually pursues a rapidly fatal course. While the disease in Jamaica spreads rapidly, its short course doubtless retards its spread.

A relatively small number of autopsies performed on those who have died from tuberculosis in Jamaica show that, whereas the chronic type of pulmonary tuberculosis familiar in white people does occur in the native Jamaican, the disease much more frequently resembles that of children in this country. It has the familiar characters of a first infection, arising in some part of the lung other than the apex and producing massive enlargement and caseation of the adjacent tracheobronchial lymph nodes. The lungs and lymph nodes contain no healing or healed (calcified) scars of a preceding infection. Death may follow general dissemination throughout the body. Instances of chronic pulmonary tuberculosis identical with that of white adults in this country occur in Jamaica, but even when the disease is most advanced in the apex, it often has characters intermediate between those of the childhood and adult types of this country, for massive caseous pneumonia is a conspicuous feature of the lesion and there is some caseation of the lymph nodes about the bronchi.

It appears, therefore, that tuberculosis in the American Negro in certain respects is intermediate between that of the native Jamaican and that of white people in the United States.

Heredity and Environment

Discussions concerning the relative importance of heredity and environment as factors of tuberculosis are unprofitable. Environment determines the conditions under which the invading micro-organism enters the body, and inherited susceptibility will determine the varying course of the disease under various conditions of infection. Specific immunity acquired as the result of infection may modify inherited susceptibility. The circumstances under which human infection with tuberculosis occurs are so complex and imperfectly understood that it is doubtful if we have any information that can be used to determine in what degree heredity

influences the susceptibility of the Negro race to the disease.

The present information does not show that the Negro race has any hereditary susceptibility to the disease, but this possibility cannot be excluded. Poverty and unfavorable environment certainly favor the spread of the disease. The pathological anatomy of tuberculosis in colored people of the United States indicates that they escape infection during childhood more frequently than the whites and then die from a form of tuberculosis that has all the severity of a first infection. Contagion within the household is the important factor. It is a problem of preventing massive infection.—*The Epidemiology of Tuberculosis of Negroes*, Eugene L. Opie, *Jour. of the Outdoor Life*, Sept., 1930.

Studies in Tennessee

In 1927, the death rate from tuberculosis in Tennessee was 96 per 100,000 population for whites and 252 for Negroes. The Tennessee Department of Health is engaged in a special study involving the racial distribution of tuberculosis. Dr. Eugene L. Bishop, Commissioner, who is aided by specialists versed in epidemiology, pathology, and sociology, summarizes some of the impressions derived from the study thus far:

1. There are definite differences in Tennessee between the white and colored races with regard to the total tuberculosis mortality rate, and in the rate by age groups. The difference in mortality rates is most marked in the years of infancy, childhood and adolescence.

2. Evidence is accumulating that similar differences exist in the racial distribution of tuberculosis infection. Results from an admittedly small group of tuberculin tested children suggests the possibility of a higher contact rate among contacts in the colored than in the white race.

3. The clinical type of the disease observed is different in the two races. The chronic fibroid type of tuberculosis is rare, but not unknown in the colored race.

4. Generally speaking, Negroes present themselves for examination, and begin treatment, in a more advanced stage of the disease.

5. Negroes are less able and less apt to adopt measures calculated to prevent the spread of the disease to other persons.

6. Negroes with tuberculosis are a source of infection not only to members of their own families, and associates, but also under certain conditions to members of the white race.—*Dangers of the Tubercle Bacilli Carrier*, Eugene L. Bishop, *Jour. of the Outdoor Life*, Sept., 1930.

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EGYPTIAN MEDICINE

SAMUEL A. COSGROVE, M.D.,
Jersey City, N. J.

It is good for the soul to glance occasionally at the past. We might well examine ourselves lest we perhaps unconsciously share the naïve attitude of Paré in supposing that in him the ignorance of the past had been superseded by a completeness of knowledge which it was extremely improbable that posterity would be able to further advance upon. It is also well to realize, in scanning the past, that "There were giants in the earth in those days . . . mighty men which were of old, men of renown." That these mighty men, our predecessors, by their sometimes untutored competence of observation discerned truths of which we are only today beginning to avail ourselves. That against tremendous handicaps of poor equipment and antagonistic environment they learned and accomplished so tremendously that the feeble brand which they were heir to has been handed on to us, as it were, a brightly flaming torch whose brilliance makes our own paths easy and places us vastly in their debt.

The back-ground against which the achievement of medicine in our own day is splashed, is co-eval with the existence of man on earth and coextensive with his wanderings over the face thereof; whenever and wherever mankind has suffered sickness and accident, medicine has been. The limits of this background are of such great antiquity as to be lost in a haze of time so remote that only the guess of

the archeologist can suggest it. The earliest historic data of mankind go back certainly not over 6000 years before Christ, whereas it is probable that mankind has lived on this earth for a period so long as to be measured in aeons rather than in years.

During that early hazy time of man's development there arose among all races and in all places what has become known as primitive medicine. This comprised the non-critical recognition of certain disease tendencies, and discovery of the medicinal value of herbs and other substances common in the environment of man, of which he had learned by observing their perhaps accidental effects and by deductions from observation of animals. It included even certain attempts at elective surgery, such as trephining of the skull. It was inextricably mixed with universal pantheism and demonology and with practices designed to combat the supernatural. In many of its essentials, it was common to all aborigines, for Garrison has well stressed what he calls the "unity of primitive medicine". Thus we can quite safely conceive that the medicine of the Aryan, Semitic and Negroid ancestors of the modern races of man, was quite similar throughout the dim distant ages, far beyond our speculation, to similar practices exhibited among aborigines in various parts of the world which authentic history has quite fully depicted for us. Always, because of the supposed supernatural factors in the causation of disease, medicine and religion intertwined and overlapped. The Priest was the medicine man, and much of medical practice consisted of superstitious and ghostly exorcism.

The remnants and effects of this hybridism of medicine and religion are woven throughout the fabric of the history of medicine up to the present time. Often it has obscured the true aims of medicine and diverted the latter from its direct pursuit of those aims.

Man developed in many important respects during the long obscure period antedating history, so that when he at last emerged in the first dawn of half-mythologic history those races which appear in the first rays of that dawn had already attained a considerable civilization. The first of them were the Egyptians, a people probably Hametic in origin but showing some evidence of embodying at various periods both Aryan and Semitic components. It is not known whether they represent the indigenous aborigines of the region. The relatively early development of a civilization among them probably depended on their habitat in the fertile valley of the Nile, a river 3766 miles in length in North Eastern Africa which empties into the Mediterranean just west of the Isthmus of Suez. East and west of the narrow strip annually fertilized by the inundations of this river are great deserts, as there are also to the north and further eastward in Syria, Arabia and Mesopotamia. The contacts of the Egyptians were with the wild tribes south, east and west—with the peoples of Moavean, Syria and Iraq, including prominently the Jews—with the coasts of this region and of Asia Minor, with the Mediterranean Isles, with Greece and Italy further east, with the Babylonians and Assyrians of Mesopotamia, and perhaps even with Persia and India.

The Egyptians existed as a nation by, and their civilization was based upon, as were all civilizations, their prowess in war. Their own fertile country produced in abundance the cereal food-stuffs and the vegetables from which their fabrics were derived. But it had no trees from which to cut great timbers for their temples, no quarries or mines whence came huge stones for their pyramids and metals for their weapons, and the precious stones of their rich commerce. All of these things were obtained as tribute from subject peoples who possessed them. Their

civilization waxed and waned as these vast stores of tribute flowed in annually from the vanquished of their military successes, in all the regions above enumerated, or flowed out as they in turn were vanquished by their neighbors.

"The political constitution of Egypt appears to have consisted in a territorial aristocracy of nobles, at the head of which was the monarch, and a powerful priesthood with richly endowed temples, in possession of the literature and learning of the race." Thus we see a politico-religious linkage which has been nearly universal in history, and which has persisted in various forms to very recent times, and even yet continues in some countries. The crown was bolstered by the priesthood which assigned to it divine lineage and sometimes actual divinity. It in turn endowed the temples and the living of the priesthood. The two sometimes struggled, and at times the priesthood seized the crown and constituted its own members kings. At other times the crown was seized and held by alien invaders. Yet, through various vicissitudes the identity of the nation persisted more than 3500 years from the time of the first half-mythical King Menes. He is said to have united, nearly 4000 years B. C. the kingdoms of Upper and Lower Egypt which were believed to have existed for many centuries before his time. In the fourth century B. C., Egypt became a satrapy of Persia, and has ever since been a vassal region. Not only was Egypt the earliest of the great civilizations whose records have come down to us, chiefly as inscriptions on various types of monuments, but it looms on the far horizon of history as first of the great succession of dominant world powers, its glories built as have been the others on the subjugation, humiliation and bondage of countless less fortunate peoples.

Besides the political constitution and the military development hinted at, the attributes of civilization among the Egyptians were numerous. They invented writing, using a system of hieroglyphs and a simpler, written language called the hieratic. Their literature consisted of religious works, much the most important; treatises on morals, rhetoric,

medicine, geometry, mensuration, arithmetic; reports and other official documents which reflect political and social conditions; and even fictional material; but systematized written history was lacking. Their moral law was the prototype of the Hebrew decalogue. Domestic life was marked by absolute equality of the sexes. Household furniture embraced tables, chairs, couches, head rests and feather pillows. Linen was the almost universal dress material and sandals protected the feet. Cosmetics, hair dyes and perfumes were common, and ornamental collars, chains, armlets, finger rings and ear-rings of gold and precious stones were used, as were toilet mirrors, razors, tweezers and hair pins. Dances, games, music, hunting and military training, kept life from monotony. Public architecture was unique in its tremendously large scale, and adorned with carving, sculpture and vivid colorings. Much of the most significant architecture was exhibited in the temples to numberless gods, and the tombs of the embalmed and conscientiously sepulchred dead. It was inevitable, of course, that a civilization such as this should embody a development of medical practice definitely better organized than the "primitive medicine" of the cliff-dwellers and nomadic tribesmen of prehistoric time. Thus, Neuberger places it in the second stage, or period, of medical history, classing together with it those systems of medicine existing in the partly contemporary civilizations of the Tigris and Euphrates valleys, and of those farther east in Asia. They are so grouped because of the fragmentary form in which the records have come down to us, because they had certain features in common, and because they probably influenced each other somewhat by intercourse of the peoples among whom they existed.

It is somewhat uncertain whether Egyptian or Babylonian medicine was the earlier. The glory of Egyptian power certainly antedated that of Babylonia, and the most significant record of Babylonian medicine, the Code of Hammura-bi, dates to about 2200 B. C., while Athatis, an Egyptian physician-priest, was the son of the first king, Menes, and wrote an anatomy about 3000 B. C. Other

kings of the "Old Empire", between 3000 and 2000 B. C., were also probably physicians, and actual medical papyri from this period exist. Yet neither the Babylonian Code nor these papyri can represent the very beginnings of systematized medicine, and there are fragmentary indications of the existence of an art of medicine among the Babylonians or their Sumerian predecessors as early as 4000 B. C.

The Hammurabian Code is interesting in that it fixes fees in relation to: (1) definite procedures; (2) the social status of patients. It also fixes severe penalties similarly graded, including mutilation of the physician's body, for unfortunate results. One speculates as to whether malpractice insurance companies undertook in those days to provide proxies for surgeons condemned to lose hands or eyes or ears, when the breaks were against them!

Without regard to relative antiquity Egyptian medicine was undoubtedly the most highly developed of the ancient medical systems of the East, and most important in its influence on the later phases of medical art. From the very beginning, it constituted a purely priestly function, and it eventually became so hidebound by priestly restriction and precedent as to be incapable of advancement.

The quasi-religious identity of physicians led to the fame of the earliest definitely known one of their number, Iem-hetep or Imhotep, who was probably a king of the third dynasty variously known as Ser or Serbes, and by the Greek names Tosorthos and Aesculapias, becoming crystalized in his later deification. He was worshipped at Memphis, and in a temple on the Island of Philae, as the God Aiemapt or Imouthos, the son of Ptah, one of the 12 gods of the first order, the creator of the sun and moon and other bodies of the cosmos, equivalent to Vulcan. Imhotep is variously estimated to have lived about 4500 B. C., or later than 3000 B. C. Other accounts say he learned the art from Osiris and Isis.

As to the special fields, knowledge of anatomy and physiology was slender and distorted, perhaps partly because embalming of dead bodies was in the hands of menials. Ob-

stetrics was practiced wholly by women, probably organized under official women supervisors. Surgery probably did not extend to invasion of body cavities but did include circumcision, operations on the extremities and neck, castration, removal of tumors, various operations on the eye, and the treatment of fractures by splinting. Among instruments used were those for cupping, knives, hooks, various types of forceps, metal sounds and probes.

Chemistry existed as a definite system—indeed the word itself signifies the “blackland” (Egypt)—and included skill in metallurgy, dyeing, distillation, and the making of leather, glass, soap, alloys and amalgams.

Botanic gardens existed and were carefully cultivated; furnishing many of the substances of a voluminous pharmacopeia. The drugs named in the papyri amount to some 700, but many of them are not identifiable. They include, however, salts of copper and lead, squills, colchicum, gentian, castor oil and opium, as well as strange and filthy derivatives of animals. They were not well systematized as to pharmacologic action, and were invariably bolstered by incantations and prayers. The following means of therapy were in use: emetics; cathartics—castor oil was administered in beer; clysters; bleeding; sudorifics; diuretics; vermifuges—pomegranate, for instance; soporifics—opium and mandragora. It is probable that many drugs of foreign, especially Phoenician, origin were in use.

Physicians were perhaps educated at one of the temples of medicine, which seem to have been combinations of hospitals for the reception and treatment of the sick and schools for education to the priesthood. The most important temples were at Heliopolis, Sais, Memphis and Thebes. A physician made his diagnosis principally by inspection, palpation, perhaps by auscultation, and by some sort of examination of the urine. He was a close specialist, restricting practice to one particular part of the body only. One can in fancy hear his arrogance assailed by jealous general practitioners and smile as a Ptolemaic Will Rogers complains that when he had an

ulcer on the left tonsil he could get no relief because the only available throat specialist treated nothing but the right tonsil. He wrote his prescriptions in a manner not greatly different from standard modern forms but in prescribing was circumscribed by the rigid restrictions of the Hermetic Books of Thoth, deviation from which might be severely punished. These books numbered 42 and were supposed to have been written by a god of the “second order”, Thot, Thout, Thoth, or Thuti, the moon god, the god of wisdom and knowledge, inventor of speech and writing and of the arts and sciences, the patron of scribes and authors, the special diety of medicine. He is also called Hermes Trismegistus.

Six of the 42 books treat of medical subjects: anatomy, general diseases, surgery, remedial agents, diseases of women and tumors.

The Ebers papyrus, once thought to be one of the Hermetic books, lists many diseases, among which are recognizable: Diseases due to parasites, including probably hookworm, bilharzia, filaria, tenia and ascaris; dysentery; piles; pains in the pit of the stomach; heart disease; headaches; urinary disorders; dyspepsia; swellings in the neck; angina; liver disease; 30 kinds of eye infections; diseases of the hair, skin, nose, ears, teeth; diseases of female genitals; abscesses; ulcers and tumors. On the first and last topics the clinical pictures are painstakingly and fairly accurately drawn.

The pharmacist who filled the prescriptions had to be resourceful, for remedies were administered as potions, electuaries, chewing gums, gargles, snuffs, inhalations, salves, plasters, poultices, injections, suppositories, clysters, fumigations.

The Egyptians practiced a high grade of personal hygiene. Their thought included the concept that disease largely depended on the food intake. Therefore, there were periodic occasions when for 3 days at a time fasting and purgation were practiced. They endeavored to protect the ground and potable waters from contamination. Their meat-foods were rigidly inspected by skilled

priests. Dwellings were kept clean. They practiced frequent body bathing, indulged in gymnastics, wore clothing sanely suited to their climate, and ate temperately. In their later history, they drank only boiled or filtered water, or barley beer. They recognized and practiced the fundamentals of camp sanitation.

This closes a brief glimpse of Egyptian medicine as it pertained to her own national existence. Much later, in 331 B. C., Alexander the Great founded Alexandria, and the Great Library which was the nucleus for what became, under Ptolemy Soter (323-285 B. C.) and his successors, a true university which for a while constituted the center of the ancient world of medicine; though the whole identity and influence thereof were Greek, not Egyptian.

Egypt, her civilization and her medicine, were the fountain heads of the steady progression of medicine to our own day. The Greek physicians undoubtedly learned of her and elaborated and passed on their learning, through many mutations, to us. Her moral code and her hygiene were transmitted to the modern world through many centuries by the Jews.

Even to christianity she made contribution: "And Moses was learned in all the wisdom of the Egyptians, and was mighty in words and deeds." "The Hebrew dwelt with" her; "the Infant Christ was carried to" her; and, "the great doctrines of christianity were established by" her.

SCARLATINAL STREPTOCOCCIC SEPTICEMIA, WITH RECOVERY

THEODORE C. MERRILL, M.D., and

J. M. LE MÉE, M.D.,

Paris, France

The subjoined report is of interest from 3 points of view, namely, those of otology, serology and immunology, and internal medicine. Initially, the case in question appears as ordinary scarlet fever, occurring in a girl aged 19, who was first seen on Jan. 22, 1930,

presenting moderate angina and temperature of 103.5° F. Significant data in the history referred to a chronic affection of the left ear, suggestive of latent or subacute otitis media, existing since the age of 5. The middle ear had been inflated repeatedly, but there was no history of perforation of the membrana tympani, nor of discharge from the middle ear or external auditory canal.

The typical scarlatinal eruption appeared late on January 23 and the patient was hospitalized, with temperature of 104° F. The rash began to fade on January 26 and desquamation continued from January 28 to February 14.

Relatively minor complications of the case included angina, cervical adenitis, arthritis and albuminuria. Major complications consisted of otitis, mastoiditis, septicemia, and facial paralysis. No minor complication was grave. The adenitis did not proceed to suppuration. No meningeal symptoms occurred; nystagmus and the Kernig sign being constantly negative. The facial paralysis was much improved by electric treatment; 2 months of the latter reducing all but moderate evidences. Interest in the case centers in the aural conditions and septicemia.

Pain and other signs in the left ear indicated the necessity for incising the membrane, which was done February 3. Good drainage permitted fairly abundant discharge of pus, but signs of mastoiditis became clearly evident and simple mastoidectomy was done February 7. Ether anesthesia was borne remarkably well and recovery was satisfactory for the moment. By February 12, however, suppuration was evidently extending downward into the neck, and the original wound was enlarged well downward for drainage February 13. Facial paralysis appeared on February 10. Meningeal signs were absent. Temperature persisting around 101° F. (38.5° C.), with rise to 101.6°, indicated deep infection, assigned to the region of the aqueduct. Hemoculture, February 14, proved negative. A third operation, attempted February 17, revealed lateral sinus thrombosis. Operation was limited to a fur-

ther opening of the infected field, for better drainage.

The anesthesia and operative procedures were well borne on all 3 occasions and temperature had declined following the first 2, but failed materially to descend after the third, and late on February 18 began to assume the oscillations typical of septicemia. Septicemin intravenously was seemingly without effect, so 20 c.c. of sterile gentian violet in normal saline (1:200) were injected intravenously on February 20. From maximal peaks of 104° to 105° F. (40° to 40.5° C.), the temperature declined to peaks of 102° to 103° F. (39° to 39.7° C.) during the ensuing 2 days; the minimal points of oscillations being 99° to 98° F. Oscillations continued, though of somewhat lower range. Culture, February 22, from the deepest part of the operative wound, yielded a hemolytic streptococcus in pure culture. On February 23, 120 c.c. blood were transfused from a donor immunized against the streptococcus and other microorganisms (immuno-transfusion); comment appears below. On the third day following transfusion, the temperature range was 99.5° to 97.6°; thereafter it hung about normal, with variations of only a few tenths degree.

During the period of well-developed septicemia (February 20 to February 28), the critical symptoms consisted of severe prostration, cyanosis, very feeble pulse, agitation, delirium, semi-coma, pallor and Cheyne-Stoke's respiration.

As suggested above, the interest of the internist is in the septicemic period and the accompanying therapy, especially in view of the infrequency of recovery in cases of this kind. The need for clarification of this subject is indicated by such expressions as the following: "These cases of streptococcic septicemia are so invariably fatal that when a patient recovers one is naturally in considerable doubt as to which particular form of therapy to attribute the results." (H. C. Bumpus). "All hemolytic streptococcic septicemias, with only occasional exceptions, are characterized by being terminal." (Cooke, J. V.) Or, still again, the report by H. C. Bean, dealing with

cases in the St. Louis Children's Hospital, in which a series of 60 cases of streptococcic septicemia (51 hemolytic and 9 non-hemolytic) presented but 1 recovery. Present uncertainty as to treatment of the various forms of septicemia is also indicated by the variety of substances employed; acridin, trypanflavin, mercurochrome, gonacrin, septicemin, the bacteriophage, electrargol and other agents. Renaud obtained cure of bacteriemia complicating uterine cancer by injecting "a colloidal complex based on gonacrin" (*la Presse méd.*, Mar. 26, 1930, p. 423). Lereboullet and Gournay report a case of hemolytic streptococcic septicemia cured with 7 intravenous injections of gonacrin (*la Presse méd.*, April 5, 1930, p. 471). Sauvé reports a case of grave septicemia, due to *Bacillus coli*, in which the infection was rapidly arrested by intravenous injection of an autobacteriophage, grown in a non-peptonic medium. He states that "notwithstanding laboratory prospectuses, the bacteriophage produces but poor and feeble lysis of streptococci" (*la Presse méd.*, April 5, 1930, p. 471, and personal communication).

In the present case, the medicinal agents selected were employed (1) to combat generalized streptococcic infection, (2) to stimulate the heart, and (3) to control nervous symptoms. In the first group are included septicemin, gentian violet, and blood from an immunized donor.

(1) *Septicemin* is iodo-benzo-methylated diformin, an organic form of iodine and formaldehyde safe for intravenous use. It was tried because of good results obtained previously in a case of postoperative phlebitis. In the present case, however, 3 intravenous injections had no evident effect. A single intravenous injection of *gentian violet* (20 c.c. of a sterile 1:200 solution in normal saline), warmed to body temperature was given. Injection was followed by slight chill and transitory cardiac depression, lasting for only a few moments. The temperature seemed to decline somewhat and a satisfactory result might have resulted from the single injection employed, or on repeating it, but it was considered imprudent to depend solely upon the

Ten recent cases from Tzanck's files.

Streptococcal septicemia. Immuno-transfusion.

Case	Age of patient	Duration From	To	Origin of infection	Surgical procedure	Blood culture	Wound or pus culture	Type of streptococcus identified	Complications	Quantity of blood transfused (c.c.)	Immunization of donor	Result	Remarks
1	30	12/17/26	2/23/27 68 days	Salpingitis	None	Pos.	—	Hemolytic	Malignant endocarditis	150	Not immunized	Death	General condition temporarily improved
2	27	?	?	Angina	None	Pos.	—	Viridans	Malignant endocarditis	180	Not immunized	Death	No improvement
3	33		4/4/27	Otitis	Mastoid		Pos.	Streptococ.	Three operations	180	Not immunized	Cure	
4	52		5/6/27	?		Pos.				200	Not immunized	Death	Marked clinical improvement
5	22	?	?	Accouchement		Pos.		Hemolytic	Pulmonary embolism	200	Not immunized	Death	
6	29	?	10/27/27	Accouchement		?		Probably streptococ.		280 4 transfusions	Not immunized	Death	Not even clinical improvement
7	32	?	?	Grippal mastoiditis	Mastoid	Pos.		Hemolytic	Cerebral embolism	180	Recently immunized	Death	
8	54	11/10/29	12/15/29 35 days			Pos.		Hemolytic		180 200	Immunized day before transfusion	Death	Temporary marked clinical improvement
9	27	2/4/30	3/2/30 26 days	?	?	Pos.		Streptococ.		150	Immunized some time before transfusion	Cure	Obtained immediately
10	?	?	2/2/29	Puerperal		Pos.		Hemolytic		250	Immunized some time before transfusion	Cure	Obtained immediately

STATISTICAL TABULATION FROM RECORDS OF AMERICAN HOSPITAL, PARIS

Streptococcic septicemia

Case	Age of patient (years)	Origin of the infection	Duration From To	Accompanying surgery (ma- told or other)	Hemoculture positive or negative	Wound or pus positive or negative	Type identified	Accompanying complications	Special treatment (serum, trans- fusion, etc.)	Termination fatal Yes No
1	57	Dental ab- scess Mos- quito bite r. leg	May 4, 1920	None	Positive	—	Strepto.	Endocarditis	—	Yes
2	78	Infected foot	Feb. 23, 1929	None	Positive	—	Hemolytic strepto.	Uremia Hypostatic pneumonia Acute nephritis	—	Yes
3	56	Gastro- enteritis	July 12, 1929	None	Positive	—	Hemolytic strepto.	—	—	Yes
4	70	Septic state follow- ing prosta- tectomy 2 months be- fore	Oct. 10, 1929	Suprapubic incision enlarged	Positive	—	Non- hemolytic strepto.	—	Gonacrin intravenously	Yes

Staphylococcic septicemia

1	26	Facial carbuncle	June 21, 1926	Incisions	Positive	Pus positive	Staphylo. aureus	—	Propidon Electargol Antigangren. serum	Yes
2	67	Furunculo- sis (diabetic)	June 1, 1928	Incisions	Positive	Pus positive	Staphylo. aureus	Acute nephritis	Insulin	Yes
3	56	Influenza	Mar. 26, 1929	None	Positive	Pus positive	Staphylo. aureus	Polyarthritits Infectious endocarditis	Electargol	Yes

Septicemia, bacteria not identified

1	45	Possible pyelitis	June 9, 1928	Thoracentesis Thoracotomy	Negative	Pleural fluid positive	—	Broncho- pneumonia Empyema	Transfusion	Yes
2	66	Infection lower extremities	Nov. 6, 1928	Incision psoas abscess	Negative	Pus positive	—	Pneumonia Repeated profuse hemorrhages	Transfusions	Yes
3	27	Miscarriage 2 months before	Dec. 3, 1928	Thoracentesis	Negative	Fluid negative	—	Broncho- pneumonia Lung abscess	Transfusion Trypoflavin	Yes
4	26	Pharyngitis Adenitis Deep infec. neck	Nov. 18, 1929	None	Negative	—	—	—	—	Yes

gentian violet in view of the continuing oscillations of temperature.

In a case of pneumococcic septicemia, Lillie (J. A. M. A., 94:531, Feb. 22, 1930) reports giving 80 c.c. of 1:400 solution gentian violet in 500 c.c. of blood. The quantity of the dye injected in our case was thus one-half that used by Lillie; who states that gentian violet was used because it was considered specific for the bacterium present (pneumococcus, Type III). The bactericidal action of gentian violet is discussed by S. Solis Cohen and Thomas Stotesbury Githens (Pharmacotherapeutics, *Materia Medica and Drug Action*, 1928, pp. 867 to 875). The department of bacteriology and immunology of Harvard University Medical School comments as follows: "Gentian violet is a trade name for a dye of the methyl violet series * * * * the bactericidal effect of any of the methyl violets would be practically identical with that of gentian violet. There appears to be very little specificity shown by the various members of the triphenyl-methane group of dyes; fuchsin, the methyl violets, malachite, and brilliant green, all inhibit the growth of Gram-positive bacteria in higher dilutions than Gram-negative, but also appear to be toxic to tissue cells in the same concentration in which they check the Gram-positive organisms. Consequently, while these dyes have been administered intravenously to combat sepsis, from time to time, there does not appear to be any real reason to expect a great deal of benefit from their use."

John W. Churchman, of Cornell University Medical College, writes: "Gentian violet is a poorly defined mixture of violet rosanilins, sometimes containing methyl-violet and crystal-violet. The Grubler gentian violet contained a large amount of dextrin. In the original experiments which I did with this substance, Grubler gentian violet was always used. There appeared to be some evidence then for the idea that a dye so made had stronger bacteriostatic powers than if dextrin was absent, but the results of an intensive study of this question since that time make it doubtful whether this is true, and it seems probable that either crystal-violet or methyl-violet is equally efficacious."

Blood supposedly containing antibodies capable of destroying streptococci or rendering them sufficiently inert to abolish their danger to the patient. This principle of immuno-transfusion, so-called, has been notably developed by Tzanck, of Paris. It departs from the Wright method in providing ample time for production of the antibodies. In the present case 120 c.c. blood were transfused directly from an immunized universal donor. The donor had been vaccinated intradermally on December 5 and 13, 1929, and on January 26, 28 and 30, 1930. The last vaccination thus occurred about 3 weeks before onset of the septicemic signs in our patient. The antigens employed for immunizing the donor consisted of 3 different strains of hemolytic streptococci, 1 strain of *Streptococcus viridans* and 1 strain of staphylococcus. According to Tzanck, sufficient antibody production in the blood of the donor requires a period not shorter than 3 weeks. Successful vaccination of the donor is shown by a general reaction, with temperature not exceeding 100.5° F. (38° C.). In the transfused patient, a favorable effect is usually indicated by prompt improvement in appetite. This did not noticeably occur in the present instance. Small quantities of transfused blood often suffice (10 c.c., for example). In the treatment of septicemic states, large quantities are not necessary in principle. In this connection, the reader is referred to "Grave puerperal septicemia cured by immuno-transfusions. Seemingly post-sero-therapeutic polyneuritis during convalescence simulating alcoholic paralysis, with psychic syndrome". (A. Tzanck and R. Weismann-Netter, *Bull. et mém. de la Soc. méd. des Hôp. de Paris*, sessions July 5 and 12, 1929, No. 25.)

(2) *Cardiac stimulation.* The agents employed for this purpose consisted chiefly of strychnin, camphor and ouabain. Strychnin was used to a limited extent in view of its action through the nervous system. A soluble preparation of camphor (camphor Dausse), more convenient than camphorated oil, proved very useful. Ouabain seemed to have an especially happy effect upon the heart muscle. It was given subcutaneously,

in doses of one-eighth milligram each, repeated not more than twice per day.

(3) *Sedation.* Codein, allonal and gardenal (luminal) proved most effective. Pantopon, sedol (containing morphin and scopolamin), somnifen and, occasionally, chloral and bromides, were used in a lesser degree.

Vaccination with a special vaccine employed by Motet was suggested, but prostration was so great at the time that it was considered safer to avoid the ensuing vaccinal reaction, and the measure was not adopted. Prostration was very marked from February 20 to 28, requiring stimulation throughout this period. Following the injection of septicemin the pulse range was 100 to 120. Following gentian violet the range was 110 to 120 on the first day, 92 to 118 on the second, and 80 to 98 on the third, rising late on the third day to 118. Following transfusion, the first-day range was 90 to 112, the second 94 to 104, and the third 88 to 90. The range during the next 7 days was practically 80 to 90, rising to a range of 90 to 100 for still another week.

In connection with the presence of sinus thrombosis, the question of the period for remaining in bed to avoid risk of embolism appeared to possess some interest. The practice of several American otologists in this respect is indicated by the following statements, taken from replies to a limited questionnaire:

(1) "As the femoral vein is continually massaged by movements of the leg, whereas the lateral sinus is immobile and acted on only by the blood current, I do not believe the same reason exists for long continued immobility in a partial lateral sinus thrombosis. It is my custom to permit cases with lateral sinus infection to be out of bed as soon as the general condition warrants. Complications of embolism, in my experience, have all occurred early in the infection; not late. I believe the clot is soon organized if it does not disintegrate."

(2) "It is very common to find that a thrombosis of the lateral sinus becomes arrested without producing emboli, and not necessitating ligation of the jugular."

(3) "A patient so treated (i. e., by ligating

the jugular vein and, if thrombosis is advancing downward, the facial vein) can be allowed to take up exercises as rapidly as the general strength will permit. Should the operator not carry out this program, and depend upon absorption of a portion of the clot, there is a theoretic danger of embolism. However, the practical probabilities are that this clot becomes invaded by blood vessels and a net of connective tissue is rapidly formed, effectively preventing any portion of the clot from being dislodged. Hence, I should think a period of 2-3 weeks would be ample time to insure the patient against danger of embolism. It is my experience that bacteria in the blood stream disappear within 24-48 hours after complete blocking of the circulation following removal of the infected thrombus."

(4) "It is rather difficult to say definitely just how long it may be necessary to keep these patients in bed but we find, if the vein and sinus have been cared for in a surgical manner, it is permissible to allow the patient to get up if he feels well enough. Only once have I seen an infarct of the lung follow sterile thrombosis in the sigmoid sinus."

(5) "It would be my idea that the jugular should be ligated and the vein thoroughly obliterated, in order to get rid of the embolism and complications. Whenever the lateral sinus is at all involved, as a complication of the mastoid operation, I keep the patient quiet in bed until the vein is thoroughly covered with normal granulation, and then allow him to sit up for probably 4-5 days before resuming the usual routine of life."

In closing, tabulations kindly supplied by the American Hospital of Paris and by Tzanck are duly acknowledged and presented for consideration.

CONCLUSIONS

(1) No definite mode of treatment is yet formally indicated for combating streptococcic septicemia.

(2) In such cases, hemoculture should be repeated several times if initial cultures prove negative. Accessory cultures from operative wounds or other sites of infection are helpful.

(3) Gentian violet is well worth trying in septicemic cases. Its atoxicity probably renders it superior to mercurochrome.

(4) Well adapted immuno-transfusion perhaps most nearly approaches a specific method for treating generalized infection. However, it requires perfecting, testing and more general development.

(5) In combating myocardial weakness in the presence of grave infection and intoxication, discrimination between cardiotonic agents is very important. Here ouabain and camphor are of first value and strychnin should be used with reserve.

(6) Sinus thrombosis appears to involve small danger of embolism and to require very limited immobilization for averting any such supposed danger.

(7) In the present case, control of septicemia is mainly referable to combined application of gentian violet and immuno-transfusion.

SUCCESSFUL TREATMENT OF GANGRENE, WITH ESPECIAL REFERENCE TO DIABETIC TYPE BY MEDICAL DIATHERMY

SAMUEL BARBASH, M.D., F.A.C.P.,
Visiting Physician Atlantic City Hospital,
Atlantic City, N. J.

It has been estimated by Joslin that there are over 1,000,000 diabetics in the United States, 26% of whom develop gangrene of the lower extremities and as a result of which 1 in 8 die. If these estimates are correct, as there is little reason to doubt, diabetic gangrene is a condition deserving intensive study. As a matter of fact, but little advance has been made in treatment of this condition and it is still regarded by internists as well as surgeons as a purely surgical condition, the sole treatment of which is amputation, the only question being how high to amputate. In the majority of cases, because of pronounced changes in the vessels, amputation has usually been well above the knee; and, for the same reason, coupled with the generally poor con-

dition of the patient, the operation has been accompanied by a high mortality.

Accepting Joslin's figures, then, over 250,000 existing diabetics will have gangrene of the lower extremities necessitating amputation from which 30,000 will die. The purpose of this communication is to describe a method whereby high amputation may be avoided and diabetic gangrene successfully treated by means of medical diathermy.

Diabetic gangrene is essentially the result of circulatory disturbance produced by endarteritis. Studies by McKittrick and Root, in 1924, of 15 amputated legs injected with barium sulphate, x-rayed, and then dissected, have shown that before gangrene sets in there is a marked effort to restore blood supply by establishment of a collateral circulation sufficient for ordinary demands; gangrene being induced by trauma and subsequent infection. It has also been definitely proved that through the deep-seated heat production induced by application of diathermy, not only is the local blood supply increased but collateral circulation that has already been established, will become even more extensive after diathermy. The essential feature of diabetic gangrene being insufficient arterial supply, the application of diathermy to treatment of this condition is logical. The results have been so satisfactory as to warrant a description of the details of the method—which is the purpose of this report.

When I first began to use this method I was not aware that diathermy had been applied to conditions producing gangrene, nor does reference to American literature of that period disclose any such reports. McKittrick & Root, although they failed to find any reports from American clinics and had no personal experience, refer to the work of Chevalier and Chezet, of France, who in 1924 reported excellent results. Granger, in his exhaustive text-book, gives only a passing mention that there seems to be a place for diathermy in the treatment of diabetic ulcer and even gangrene because of its effects upon the circulation.

The first of the 23 cases herewith reported was treated with diathermy in 1926; all

were unselected and included 19 diabetics, 3 trophic ulcers following spinal cord injuries, and 1 non-diabetic gangrene following trauma. In the diabetic cases gangrene involved either the feet or toes, some being superficial and others concerning the entire toes. There were 2 deaths in the series, one due to associated syphilis and tuberculosis, the other following amputation. One diabetic case, with a small area of gangrene on the inner side of the heel, and with considerable pain, failed to respond satisfactorily to diathermy.

While the general principles upon which diathermy treatment of diabetic gangrene depend have already been referred to, the details of application will, of necessity, vary somewhat with the circumstances of any particular case. In some instances, due to involvement of the smaller vessels, there will be superficial gangrene of the soft parts; in others, where there is occlusion of the larger vessels, there will be extensive gangrene involving the deep tissues, even including the bone, and in these treatment will necessarily be prolonged.

In superficial gangrene it is possible, with diathermy, to produce complete healing of the parts; in deep gangrene, where there is viable tissue, it is also possible to bring about tissue regeneration; but where gangrene is complete and no viable tissue remains, tissue regeneration is, of course, impossible and amputation becomes necessary. Even in these bad cases, however, it is possible through diathermy to save all but a small part of the extremity.

The following case is given in detail because of the opportunity it affords to illustrate the results of treatment by diathermy and treatment by amputation.

Case Report: H. H., colored female, aged 47, was admitted to the Atlantic City Hospital April 20, 1928, with an extensive necrosis on the dorsal surface of the left foot extending from the little to the big toe and back to the proximal end of the first metatarsal. (Fig. 1). The gangrenous area was roughly about 10x12 cm. and involved all tissues down to the exposed tendons. Family history was without interest. Past history was unimportant until 2 years before, when she began to have

headache with, later, urgent and frequent urination and pruritis vulvae. On admission the blood sugar was 300 mgm. per cent and the urine contained 1.5% sugar. With insulin and dietetic regulation the glycosuria rapidly disappeared and the blood sugar gradually returned to normal.

Diathermy was started April 21, a line of demarcation was established by April 24, be-



Fig. 1. Case 4—Moist gangrene of left foot. Tendons exposed. Completely healed. See Fig. 2.

came definite in 3 days and on June 13, 1928, the patient was discharged with a completely healed foot. She came to my office early in May, 1929, at which time the area was covered with a healthy scar. She was employed as a cook and felt no discomfort at being on her feet a large part of the day. No blood sugar test had been made nor had she received any treatment since her hospital discharge.

On May 28, 1929, she was readmitted to

the hospital, under another physician's service, with gangrene involving the second, third and fourth toes of the right foot. (Fig. 2.) The blood sugar at that time was 294 mgm. per cent, varied from 260 to 232 mgm. daily and reached 350 mgm. per cent before she died. She was given 30 units insulin daily and her diet regulated. At my request, diathermy was begun June 2, 1929, and continued for 2

phalanges and distal portion of the second, third and fourth metatarsals. The proximal portions of these bones were apparently healthy, and the blood supply was good down to and including the plantar arch, as evidenced by patulous arteries down to the affected parts. There was infection of the soft tissues of the plantar arch for about 2 in. back of the gangrenous area.

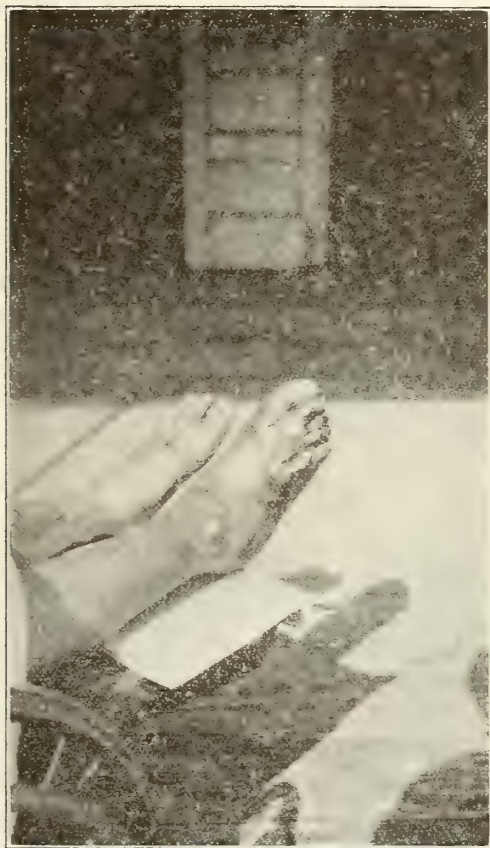


Fig. 2. Case 16—Gangrene of right foot. Same patient as Case 8. Note condition and healthy scar of left foot which was treated a year previous by diathermy. Diathermy was not carried out in the right leg, but amputation done, and the patient died 36 hours later.

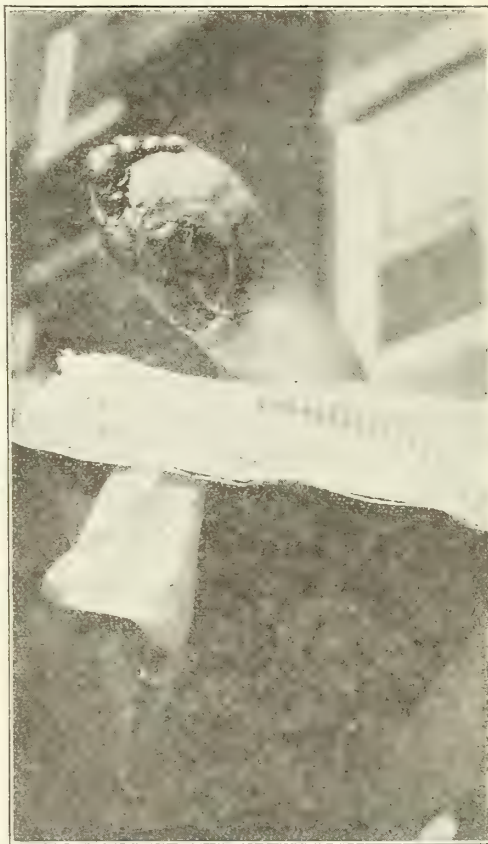


Fig. 3. Case 8—Moist gangrene of big toe and plantar surface left foot. Complete sloughing and tendons exposed. Big toe removed down to metatarso-phalangeal joint without anesthesia. Tendons covered with healthy granulation and foot greatly improved but the patient died of tuberculosis November 2, 1928. See Fig. 4.

weeks, when it was discontinued by the physician on service and amputation recommended by a surgical consultant. Amputation above the knee was done, the patient reacting poorly and dying 36 hours later from shock.

The amputated leg was dissected and it was found that the gangrene involved the

It is of exceptional interest to note that in the left foot, which had been treated a year before by diathermy, in spite of the severity of the diabetes and extent of the gangrenous area, there had been no recurrence of the gangrene, thus proving the efficiency of collateral circulation which had been established. I am convinced that a similar result could

have been attained with the right foot had diathermy been carried out for a sufficient time.

It is obvious that in all cases the diabetes must be treated, the blood sugar held within normal limits, and any other systematic ailment relieved. Diathermy cures the damage already done when gangrene sets in, but unless normal blood is supplied to the parts treatment cannot be effective.

who, in September 1928, developed a trophic ulcer following laminectomy at the twelfth dorsal vertebra. The ulcer was about 10 cm. in diameter and involved the gluteal muscles. This was cured, except for a small surface area which continued to discharge a serous fluid but remained free from infection until her death from bronchopneumonia in May, 1930.



Fig. 4. Case 8—Dorsal view of same foot as in Fig. 3.

Diathermy has been equally successful with trophic ulcers, of which there were 2 cases in our series. In one young woman, seen in 1926, with a trophic ulcer of the left heel that had been treated by various methods without success for over a year, a permanent cure was effected in 3 weeks. In 1928, this patient returned with trophic ulcers on the toes of both feet, which, however, disappeared under diathermy in 6 weeks.

The second patient was a woman aged 64



Fig. 5. Case 14—Moist gangrene toes of left foot. Completely healed. See Fig. 6.



Fig. 6. Case 14—Dorsal view, same foot as Fig. 5.

TECHNIC

(1) *Application of electrodes.* Close application of the electrodes to the skin and a good lubricant are essential. Several methods were used. In some cases one electrode was placed on the dorsum of the foot and one on the sole. In others, one electrode was placed around the ankle, and the foot rested in a pyrex basin of salt solution about 1 in. deep,

while the second electrode was put over the edge of the basin extending down into the salt solution so that it was in front of the affected toes. In a few cases where there appeared to be occlusion of the vessels of the leg as well as of the foot, 3 or even 4 electrodes were applied; one above and one below the knee, one around the ankle, and one on the sole. Treatment was given first between the highest and second electrodes, then between the second and third, finally between the third and fourth electrodes.

With properly applied electrodes there is no possibility of a burn, which is always the result of an error in technic. Should the patient complain of a burning or stinging sensation the electrodes are being improperly applied, or there is insufficient lubrication under them. By improper application of the electrodes is meant too close contact at one edge, less close contact at another edge, or too tightly bandaging the electrode in place. This must be corrected by using more lubricant and keeping the electrodes in even contact with the skin.

(2) *Dosage.* With a given milliamperage the current density is equal, if the electrodes are of the same size, and the greatest amount of heat is produced half way between them when the current is turned on slowly. If electrodes of unequal size are used, the current density and heat production are greater nearer to the small electrode. The desired effect can thus be localized. In normal vascular tissues, with good contact of the electrodes it is safe to use 100 milliamperes of current for each square inch of the small electrode, but owing to the fact that in the cases described there was devitalized tissue it was thought wiser to use much smaller dosage. An absolutely safe guide for the amount of current used is the reaction of the patient. If the patient complains of an uncomfortable, dull pain, the current is too heavy and should be reduced to slightly below the point of tolerance.

Where there is absence of sensation, as in cases of injury to the spinal cord, there is no way of knowing when the heat produced is too intense and great dam-

age can be done. It is wise in such cases to give diathermy even more cautiously, being careful to stay well under the point of tolerance of a patient with sensation, and to lessen the milliamperage to 50 or lower for each square inch of the small electrode.

(3) *Duration.* At the beginning, treatment is usually given for 20 minutes. In a few days the time can be increased to a half-hour, and a few days later to 45 minutes. Some patients respond to treatment sooner than others. While some show improvement within a week or less with a half-hour daily treatment, others are slow to improve until longer and more frequent treatments are given.

(4) *Frequency.* Treatments are given daily. If progress is not sufficiently marked at the end of a week, treatments are given twice daily, and occasionally 3 times daily. As progress is made, the frequency of treatment can gradually be diminished. It is wise not to cease treatment too soon or too suddenly, but even after the foot is apparently healed to continue treatment 2 or 3 times weekly for several weeks. At the best, these cases are prolonged. Two to 3 months of treatment is the average time, although 1 or 2 cases required longer.

The immediate effects produced in patients were:

(1) A feeling of warmth in the viable tissues.

(2) Diminution of pain in the parts. At first the pain disappeared after treatment, to return a few hours later. As the patient improved, the remissions of pain were longer, until finally the pain disappeared altogether.

(3) Disappearance of the odor of putrefaction.

(4) Lessening of the amount of pus discharged from the wound.

A table of cases treated is appended.

CONCLUSIONS

(1) Diathermy is a valuable adjunct in the treatment of gangrene, necrosis and ulceration.

(2) Application of electrodes in each case must be guided by the location of the lesion.

TABLE OF 23 CASES OF NECROSIS AND GANGRENE
(DIABETIC AND NON-DIABETIC)
SUCCESSFULLY TREATED WITH MEDICAL DIATHERMY

Note: Under results, the word "cured" refers to the gangrene and necrosis, and not to the associated systemic condition.

Case	Race Sex	Age	Occupation	Part Involved	Treatment	Results
1	White Female	25	None	Trophic ulcer left heel. Spinal cord injury.	Diathermy 7/23/26 to 8/16/26.	Cured. No recurrence.
2	White Female	27	None	Trophic ulcers 4 toes left foot; 3 toes right foot. Spinal cord in- jury.	Diathermy 4/15/28 to 5/28/28.	Cured. No recurrence.
3	White Male	55	Chauffeur	Moist gangrene distal phalanges 2nd & 3rd toes right foot; inner surface big toe and dorsum left foot. End of 3rd toe right foot amputated. Diabetic.	Diathermy 3/18/28 to 5/21/28.	Cured. No recurrence.
4	Colored Female	47	Cook	Moist gangrene left foot. Diabetic. See Figs. 1 and 2.	Diathermy 4/29/28 to 6/23/28.	Cured. See case report.
5	White Male	54	Cook	Moist gangrene with infection 4th toe left foot. Diabetic.	Incision and drainage. Diathermy 6/4/28 to 8/10/28	Cured. No recurrence.
6	Colored Male	54	Cook	Moist gangrene toes of left foot. 5th toe amputated. Diabetic.	Diathermy 6/14/28 to 9/6/28.	Cured. No recurrence.
7	White Female	71	House- work	Moist gangrene and infection left foot. Diabetic.	Incision and drainage. Diathermy 7/20/28 to 9/7/28.	Improved and referred to dis- pensary. No follow-up.
8	Colored Male	60	None	Moist gangrene big toe and plantar sur- face left foot. Slough- ing of superficial sur- face and tendons ex- posed. See Figs. 3 and 4.	Incision and drainage. Diathermy twice daily 8/31/28 to 11/3/28.	Gangrene much improved. Died 11/8/28 of t.b.
9	Colored Female	59	Cook	Gangrenous areas and infection over 1st meta- tarsophalangeal joints of both feet. Diabetic.	Spontaneous drainage. Diathermy 9/21/28 to 10/26/28.	Cured. No recurrence.
10	White Female	64	None	Gangrene and trophic ulcer at 12th dorsal vertebra after lamin- ectomy. Spinal cord injury.	Excision and drainage. Diathermy 9/29/28 to 2/9/29	Improved. See report.
11	Colored Female	61	House- work	Moist superficial gan- grene and infection 2nd & 3rd toes right foot. Diabetic.	Spontaneous drainage. Dia- thermy daily 10/1/28 to 10/10; 6 treatments between 11/9 and 11/18/28.	Cured. No recurrence.
12	White Female	62	House- work	Dry gangrene over right tibia. Diabetic.	Diathermy 12/11/28 to 1/5/29.	Cured. No recurrence.

Case	Race Sex	Age	Occupation	Part Involved	Treatment	Results
13	White Male	61	Magistrate	Moist gangrene 4th toe and heel right foot. Diabetic.	Diathermy 2/25/29 to 3/26/29.	Toe cured. Heel improved. No follow-up.
14	Colored Female	54	House- work	Moist gangrene toes left foot. Diabetic. See Figs. 5 and 6.	Diathermy 3/19/29 to 4/6/29. Re- admitted 4/25. Diathermy continued to 5/2/29.	Cured. No recurrence.
15	White Female	64	House- work	Dry gangrene meta- tarsophalangeal joint big toe right foot and distal phalanx of same toe, and between 4th and 5th toes of same foot. Diabetic.	Diathermy 4/6/29 to 7/29/29.	Cured. No recurrence.
16	Colored Female	48	Cook	Moist gangrene right foot. Diabetic. See Fig. 2.	Diathermy 6/2/29 to 6/19/29. Am- putation of leg 6/20/29.	Died 6/22/29. See case report.
17	White Female	73	None	Moist gangrene dor- sum left foot. Diabetic.	Diathermy 9/1/29 to 10/27/29.	Cured. No recurrence.
18	White Male	62	Laborer	Deep moist gangrene with infection, anterior surface left leg between knee and leg. Traumatic. Non-dia- betic.	Incision and drainage. Diathermy 10/25/29 to 11/20/29.	Cured. No recurrence.

(This was the patient of Dr. Robert Durham, Atlantic City, and was treated by him.)

19	White Male	58	None	Moist gangrene an- terior portion of both feet. Terminal phalanx right great toe ampu- tated. Diabetic. (Due to frostbite.)	Incision and drainage. Mercury quartz 1/14/30 to 2/8/30. Re- turn of sen- sation, no advance of process, but very slight healing. Diathermy 2/9/30 to 5/7/30. Im- provement rapid.	Cured. No recurrence.
20	White Male	60	Janitor	Moist gangrene 4th and 5th toes left foot with complete destruction of head of phalanx and lower fourth of 5th metatarsal. Dia- betic.	Diathermy 1/30/30 to 2/28/30.	Cured. No recurrence.
21	White Female	63	House- work	Two circular areas of moist gangrene each 3 cm. in diameter, above the internal and external malleolus right foot. Diabetic.	Diathermy 1/23/30 to 4/20/30.	Cured. No recurrence
22	White Male	64	Carpenter	Dry gangrene left great toe. Terminal phalanx amputated. Diabetic.	Diathermy 2/26/30 to 6/7/30.	Cured.
23	White Male	79	None	Moist gangrene 4th toe right foot. Toe amputated. Diabetic.	Diathermy 3/5/30 to 4/28/30.	Cured.

(3) An index to dosage is the tolerance of the patient, except in cases of spinal cord injury, when it is impossible to use the patient's sensation as a guide.

(4) Removal of completely gangrenous parts, free incision and drainage when pus is present, and the usual antiseptic local treatment, in addition to the diathermy, are essential to healing.

(5) Septicemia did not occur in any of our patients as a result of the use of diathermy. In the presence of free drainage, when pus is present, the danger of septicemia is small.

(6) By the use of diathermy extensive amputations can be avoided.

(7) The death rate is much lower than when amputation is done; there being no deaths in this series due to the gangrene per se.

(8) Upon recovery the patient has full use of the limb, only occasionally losing that portion of the extremity which has become completely gangrenous.

(9) There are a large number of diabetics throughout the country who suffer from gangrene, and a certain number of patients who suffer from trophic ulcer as a result of spinal cord lesions, and who die of septic infection. In view of these facts it would seem that diathermy should be used in preference to, and before resorting to, radical surgery.

(10) The diabetes and any other associated systemic conditions must be treated as such, in addition to the treatment of the gangrene.

(11) The effect of diathermy is lasting and the collateral circulation established appears to be permanent and sufficient to maintain a good blood supply to the affected parts.

INDICATIONS FOR DIGITALIS THERAPY IN CARDIOVASCULAR DISEASE, AND ITS METHOD OF ADMINISTRATION*

WILLIAM D. STROUD, M.D., and

ALBERT W. BROMER, M.D.

In spite of the fact that digitalis is one of the most commonly prescribed and most useful of cardiac drugs, there prevails in the minds of many practitioners considerable confusion regarding its proper administration. The main theme of this paper is based upon a statement by William Withering, in 1785, when he wrote his classical account of the uses of digitalis. He declared: "Let it be continued until it either acts on the kidneys, the stomach, the pulse, or the bowels; let it be stopped upon the first appearance of any one of these effects." The essence of that statement must be strictly adhered to when prescribing digitalis;

otherwise, attempts at therapy will fail in many cases that might well be benefited. It makes no difference in what form the drug is prescribed, whether in the form of the tincture, the infusion, or the powdered leaves (in tablets or capsules); nor whether it is administered hypodermically, intravenously, or rectally; nor whether the preparation is that of one manufacturer or of another; the vital point is that enough of the drug to ensure *full digitalization* must be administered before there can be any certainty that any particular preparation will not produce the desired effect upon any particular patient.

The term "full digitalization" is usually used to signify the securing of full therapeutic effects through beneficial changes in the circulation. At times, however, the stage of full digitalization is signalized by the incidence of certain toxic symptoms, which may occur with or without the clinical improvement desired. Unless either clinical improvement or symptoms of toxicity appear, a sufficient amount of digitalis has not been given to judge correctly the efficacy of the preparation being used; it is always a matter of the amount of digitalis given, and not of

* (This work has been done under the Robinette Foundation of the University of Pennsylvania, and the Morris W. Stroud, Jr. Fellowship in Cardiology of the Pennsylvania Hospital, and the report was read at the 164th Annual Meeting of the Medical Society of New Jersey, Atlantic City, June, 1930.)

the form in which it is given. Of course, the stronger the preparation, the sooner will results be obtained. For example, to produce the same effects it will take 7 times as much of an infusion as of a tincture. Only preparations which have been properly assayed for biologic potency should be used. Any deterioration of the preparation at hand can be readily offset by a corresponding increase in dosage. There is no advantage to be gained in changing from the brand of one manufacturer to that of another. Providing the dosage is sufficient, similar effect can be secured from a freshly prepared infusion or a properly standardized tincture as from the powdered leaves prescribed in tablets or capsules.

Therapeutic effects of digitalis. In administering digitalis, what is the effect we wish to secure upon the patient's circulation? It is quite generally considered that chronic circulatory failure includes a slowing of the blood stream and a diminished cardiac output. In many patients evidence of the circulatory stasis is seen in engorgement of the superficial veins and in the physical signs of pulmonary congestion. Actual measurements of blood velocity in heart disease have shown that the rate of flow through the lungs is slowed in heart failure. It is hoped, therefore, to secure in each patient the most efficient circulation possible in face of the pathologic and physiologic changes present at that particular time. Through administration of digitalis benefit can be accomplished in 1 or all of 3 ways, described as follows:

(1) By slowing the heart rate, that is by lessening the number of ventricular systoles per minute, the diastolic period is lengthened, whereby ventricular filling is rendered more complete, and the heart muscle fibers are afforded more rest; and, as a consequence, there may result a greater expulsion of blood into the circulation with each systole. Slowing of the pulse rate does not necessarily follow slowing of the ventricular rate. In some cases of auricular fibrillation slowing the heart rate with rest and digitalis may actually bring about an increase in the pulse rate, by virtue of more impulses reaching the wrist

through the strengthening of each ventricular systole. The apical rate in auricular fibrillation is of much greater importance than the pulse rate alone. Pulse deficit, the difference between the pulse rate at the wrist and the rate taken at the apex of the heart, is of significance. Digitalis tends to remove pulse deficit by making the pulse rate equal the ventricular rate. Because of the greater amount of rest afforded the ventricles, through slowing the rate, digitalis is of benefit in auricular fibrillation whether congestive failure is or is not present.

(2) By increasing the cardiac tone, thereby relieving or preventing dilatation of the heart chambers beyond the physiologic limit, the optimum cardiac output is made possible. When the length of the heart muscle fibers is increased beyond a certain limit, the cardiac output is decreased; and "heart failure" is believed to result. Restoration of the fibers to a shorter length is a factor in bringing about an increase in cardiac output, with the possible return of circulatory efficiency.

(3) Through increase of the extent of ventricular contraction, there tends to be an increase in cardiac output when heart failure is present. At any instant, cardiac output is the net result of the size of the heart chambers and the extent of ventricular contraction.

Recovery from heart failure, during rest and digitalis therapy, may thus be attributed to an increase in cardiac output, which results from more complete diastolic filling, following slowing of the rate, and from a simultaneous increase in the tone of the cardiac fibers and in the extent of ventricular contraction. With improvement in the circulation, more blood enters the coronary vessels, and there results better nourishment of the heart itself. Ample evidence of the therapeutic effects of full digitalization is seen clinically in the disappearance of edema, diuresis, lessening of dyspnea, steadying of the pulse, and general betterment.

Toxic effects of digitalis. As previously mentioned, in some instances, before obtaining a complete restoration of circulatory efficiency, the point of full digitalization may be signal-

ized by the development of toxic symptoms. These symptoms may indicate that the damage to the heart is of such type that, even with rest and full digitalization, it seems impossible to restore complete circulatory efficiency; or merely that administration of the drug has been carried beyond the patient's tolerance. The symptom of toxicity most commonly encountered is nausea, or vomiting, which may be preceded by a period of anorexia, headache and vertigo. Nausea and vomiting are symptoms which all good digitalis preparations are capable of producing in a vast majority of patients. Any preparation that is claimed not to cause nausea will also fail in its therapeutic effectiveness. Psychic vomiting, precipitated by the bitter taste of the drug, may follow administration of but one or several doses of digitalis. Careful inquiry regarding previous medication will aid in differentiating this type of vomiting from vomiting caused by overdosage. Toxic effects on the heart may occur also in the form of extrasystoles, coupled rhythm, partial auriculoventricular heart block, complete heart block, paroxysmal tachycardia, or regular sinus rhythm becoming irregular or intermittent. The appearance of any symptoms of digitalis intoxication calls for the immediate cessation of further dosage for at least 24 hours until the untoward effects disappear.

Cumulative action, rate of absorption, and persistence of effects of digitalis. In administering digitalis it is extremely important to realize that a certain amount must be accumulated in the body before any therapeutic effect will become evident. The drug is slow in affecting the heart, while, on the other hand, its action, after being instituted, is very prolonged. If the dose be repeated over a period of time at a rate faster than that of elimination and destruction, action of the drug becomes more and more marked—*cumulative action*. Action on the heart muscle fibers, as shown by changes in the T wave of the electrocardiogram, or by clinical improvement, begins between 2 and 4 hours after the administration by mouth of a dose of 1 minim or more of a standardized tincture for each pound of body weight, and reaches its maxi-

mum in from the sixth to the twenty-fourth hour. In auricular fibrillation the maximum effect has been found to persist for from 4 to 15 days after stopping the administration of digitalis. In view of the persistence of action, before beginning the administration of digitalis in large doses it is of the greatest importance to make certain that the patient has not been taking digitalis for at least 2 weeks immediately preceding.

Administration of digitalis. In how large doses should digitalis be given, and how rapidly may full digitalization be safely attained? The total amount of digitalis necessary for the obtaining of full therapeutic benefits may be calculated from the patient's weight, and the activity of the preparation, according to the Eggleston method. By this method the average total dose by mouth of a carefully standardized tincture is 0.15 c.c. (2.25 minims) per pound of body weight, as shown in Table 1.

TABLE 1
FULL DIGITALIZATION DOSES
(Calculated by the Eggleston Body-Weight Method)

Weight Pounds	Cat unit per pound of body weight	Total amount of tincture C.C.	Minims	Total amount of powdered leaves Grains	Grams
40	0.15	6.00	90.0	9.0	0.6
60	0.15	9.00	135.0	13.5	0.9
75	0.15	11.25	168.75	16.8	1.125
100	0.15	15.0	225.0	22.5	1.5
125	0.15	18.75	281.25	28.1	1.875
150	0.15	22.50	337.5	33.75	2.25
175	0.15	26.25	393.75	39.3	2.625
200	0.15	30.00	450.00	45.0	3.0

Note: To show more clearly the method of calculation, particularly the transfer from one denomination to another, the figures in this table have been allowed to stand at 2 or more decimal places.

In accord with the Cat Method of Hatcher, a tincture of full U. S. Pharmacopeia strength is one of which 1 c.c. (15 minims) represents 1 cat unit. A cat unit is the amount of digitalis per kilogram of body weight which is required to kill a cat when injected slowly and continuously intravenously. It is well to remember that the tincture of digitalis is a 10% solution, and, therefore, that the quantity of tincture in minims is 10 times the amount in grains of powdered digitalis leaves. Thus 1 c.c., or 15 minims (from 30 to 60 drops), of

the tincture is equivalent to 1.5 gr. (0.1 gm.) of powdered digitalis leaves. Quite often inability to secure full digitalization with the tincture arises from failure to realize that a dose measured in drops from an ordinary dropper must be from 2-4 times the amount measured in minims. By this method of calculation (as shown in Table 1), to fully digitalize an adult of medium size (weighing 150 lb.) there will be required 33.75 gr. (2.25 gm.) of powdered leaves, or 337.5 minims of a properly standardized tincture. It should be mentioned that children 4 years of age or older, weighing over 40 pounds, with heart disease, have been found to require about 50% more digitalis per unit of body weight than would be required for adults; and that younger children, weighing between 16 and 40 lb., respond to digitalis, as a rule, more readily than adults.

Administration by mouth. There is no fixed method which must be followed in the administration of digitalis; however, it is well to have in mind the approximate total amount of the drug necessary for obtaining full therapeutic effects.

For patients suffering severe decompensation, under close observation, full therapeutic effects can be obtained in from 12 to 36 hours, in the majority of cases, by following the method of administration outlined by Eggleston. The total amount of digitalis required is calculated from the weight of the patient (making allowance for edema and excess adipose tissue), as shown in Table 1. One-third to one-half of the total amount required may be given at a single administration, to be followed in 4-6 hours with one-fourth to one-third of the total amount. The remainder is then given in a few doses of small size at intervals of 4-6 hours. Before giving the first dose it is important to make certain whether or not the patient has been taking any digitalis during the two weeks immediately preceding, so that the size of the dose may be diminished, if necessary. The interval of 4-6 hr. between doses allows time for complete absorption of each dose before the succeeding dose is given, thereby avoiding the danger of causing severe poisoning through over-dosage.

In many instances, because of inability to weigh the patient, and also to judge correctly the weight of the edema, the average amount of drug necessary to secure full therapeutic effects in a patient of small size is estimated to be approximately 30 gr. (2 gm.) of powdered digitalis leaves, or 300 minims of tincture; in a patient of medium size 33.75 gr. (2.25 gm.) of powdered leaves, or 337.5 minims of tincture; and in a large patient 37.5 gr. (2.5 gm.) of powdered leaves, or 375 minims of tincture. For a patient of small size the schedule of dosage might be as shown in Table 2, which is a slight modification of the original Eggleston method first mentioned.

TABLE 2
ADMINISTRATION OF DIGITALIS BY
MODIFIED LARGE DOSE METHOD

Hour	Dose of powdered leaves		Dose of tincture	
	Grams	Grains	C.C.	Minims
8:00 a. m.	0.5	7.5	5.0	75
12:00 (noon)	0.5	7.5	5.0	75
4:00 p. m.	0.2	3.0	2.0	30
8:00 p. m.	0.2	3.0	2.0	30
12:00 p. m.	0.2	3.0	2.0	30
4:00 a. m.	0.2	3.0	2.0	30
8:00 a. m.	0.2	3.0	2.0	30
Total Amount	2.0	30.0	20.0	300

According to this plan, the first dose consists of one-fourth of the total amount, and is followed in 4 hr. by dose of similar size. The remainder is then administered at the rate of 3 gr. (0.2 gm.) of powdered leaves, or 30 minims (from 30 to 60 drops) of tincture, every 4 hours. At the end of 24 hr. the last dose of the series is given. A smaller dose of 1.5 gr. (0.1 gm.) of powdered leaves, or 15 minims (from 30 to 60 drops) of tincture, might be given to the less ill patients, full digitalization being attained on about the third day. Administration of the drug should be continued at the rate of 1.5 gr. (0.1 gm.) of powdered leaves, or 15 minims (from 30 to 60 drops) of tincture 3 times daily until there is evidence of digitalis action, either in clinical improvement or in the appearance of minor toxic symptoms.

In the treatment of patients who are not in imminent danger of failure, such as patients seen in office practice, or in hospital out-patient clinics, rapid digitalization is not indicated. Doses of either 1.5 or 3.0 gr. (0.1 or

0.2 gm.) of powdered digitalis leaves, or 15 or 30 minims (from 30 to 60 or from 60 to 120 drops) of tincture, may be given 3 times daily, or as often as every 4-6 hr. until the signs of digitalis action appear. In each case the total amount of drug necessary to obtain full therapeutic effects should be estimated and borne in mind. By this method full digitalization may be effected in from 3-7 days, depending upon the size and frequency of doses. Because of the length of time required, it is easy to avoid precipitating distressing nausea or vomiting, or other symptoms of toxicity.

Maintenance of full therapeutic effects. After the stage of full therapeutic effects has been attained, the patient can be kept in the state of optimum benefit through the daily administration of from 1.5 to 3 gr. (0.1 to 0.2 gm.) of powdered leaves, or from 15 to 30 minims (from 30-60 to 60-120 drops) of the tincture of digitalis. The amount of digitalis that disappears from the body each 24 hr. has been found to *average* 2.25 gr. of powdered leaves, or 22 to 23.5 minims (from 45 to 90 drops) of tincture. Because of variations in individual susceptibility to digitalis, in the ability of absorption of different individuals and in the absorbability of different preparations, it is impossible to state the exact amount of the drug which will meet the maintenance requirements of every patient. For some individuals the daily requirement may be an amount as small as 1 gr. of powdered leaves or 10 minims (from 20 to 40 drops) of tincture, while in other cases the amount may be as much as 4 gr. of powdered leaves, or 40 minims (from 80 to 160 drops) of tincture. Each patient must be followed carefully, in order that the dosage may be adjusted to his particular needs. After the daily maintenance dose has been determined, it may be used regularly for a long period of time without further change.

Intramuscular, intravenous and rectal administration. Administration of digitalis by routes other than the mouth is at times indicated. Administration intramuscularly, or rectally, is frequently necessitated when the patient's stomach is intolerant for reasons

other than digitalis over-dosage, or when the patient is not able to swallow.

When given intramuscularly, the same principles which govern the size and frequency of dosage by mouth must be followed in order to secure real benefit. As usually practiced, dosage intramuscularly is too small. There are various preparations on the market, in sterile ampules or vials for hypodermic use. Since intramuscular injection of digitalis preparations are irritating, and since absorption is no more rapid and no more complete by this method, administration by mouth should be adopted whenever possible.

Intravenous administration is dangerous, and is used only in emergencies for patients *in extremis*. A preparation of strophanthin is usually used. Amorphous strophanthin may be given in doses of 0.5 milligram (1/120 gr.), and may be repeated, if necessary, once in 24 hours. Crystalline strophanthin (ouabain) is more toxic than amorphous strophanthin; and, therefore, the dose is half as large. Intravenous administration should be done only by competent observers under carefully controlled conditions, after having made absolutely certain that the patient has not received any digitalis for at least 2 weeks immediately preceding.

Excellent results can be obtained through administration of the daily amount of digitalis in 2-4 doses, as retention enemas, each dose diluted in 50 to 100 c.c. normal saline solution. Rectal administration should be used only when the drug cannot be taken by mouth.

Indications for and limitations of digitalis therapy. Much too frequently digitalis is accredited with too far-reaching power as a cardiac drug. Benefit is often looked for in every condition where general stimulation is seemingly indicated, even though there is no evidence of cardiac disease. Such ideas are distinctly erroneous. Digitalis is not a circulatory stimulant for ordinary use. Its use is indicated only where there are signs of cardiac failure.

The value of digitalis therapy in auricular fibrillation, with or without signs of decompensation, is well understood. Great benefit

is also effected by use of the drug in valvular heart disease with congestive failure, and in failure with hypertrophy, associated with regular rhythm, rapid or slow. It is also of value in changing auricular flutter to fibrillation, with subsequent slowing of the rate. Slowing of the rapid heart with regular rhythm, without signs of decompensation, does not occur as a rule without other symptoms of severe digitalis poisoning. Though contraindicated in partial auriculoventricular heart block, it may be of distinct benefit in complete block when signs of decompensation are present.

The presence of high blood pressure does not serve as a contraindication to the use of digitalis in chronic heart disease. Excellent therapeutic results often follow administration of the drug. With reestablishment of circulatory efficiency there may be a definite lowering of both the systolic and diastolic pressures, particularly the latter.

For a number of years digitalis has been quite generally used in the treatment of pneumonia, because of the "cardiac support" believed to be afforded thereby. The value of the drug in this disease has been rendered quite questionable recently by the findings of a special committee.** The mortality rate has been found distinctly higher among pneumonia patients receiving digitalis than among those not receiving the drug.

At this point mention should be made of the importance of rest in all cases where digitalis therapy is indicated. Without proper rest of body and mind, the benefits of digitalis therapy may be defeated. Not infrequently more benefit results from absolute rest in bed than from the digitalis.

Proprietary and special digitalis preparations. At the present time additional confusion is added to the use of digitalis through the large number of proprietary and special

digitalis preparations on the market. Variation in the potency of these products is well known. Unquestionably, there are some of first-class quality which have been carefully assayed for biologic potency and stamped with the date of manufacture; however, there are others which are distinctly misbranded. The statements as to efficacy of some preparations are exaggerated; and, furthermore, certain prices are excessive and unwarranted. Some of the more commonly used preparations, with the variations in prices, are shown in Table 3.

Study of Table 3 shows that the catalogue prices of powdered digitalis leaves, prescribed in tablet, capsule or pill form, vary from 0.6 to 5 cents per cat unit. Tinctures supplied in ounce bottles are shown to be considerably more expensive than when purchased by the pint or larger quantities. The range of variation in tincture prices per cat unit is exactly the same as that of the powdered leaf preparations just cited. Preparations for use hypodermically are expensive, varying in price from 9.2 to 19.2 cents per cubic centimeter ampule (one cat unit). The druggists' high prices are due in part to the necessity for carrying in stock so many different brands to satisfy the wishes of various patrons. Changes in the physicians' attitudes as regards the various digitalis preparations may render certain preparations economic losses to the druggist. Money might be saved in hospitals through the adoption of a minimum number of digitalis preparations, the effectiveness of each having been found satisfactory through use over a period of time.

Do the high-priced preparations possess greater effectiveness than those of lower price? That question is difficult to answer correctly, particularly since the various manufacturers do not use the same method of standardization. It seems that the real efficacy of any particular preparation can be learned only through trial over a period of time. It is hoped that the problem of digitalis therapy will soon be simplified by adoption of a minimum number of carefully standardized products, in accord with recommendations recently made by the Digitalis Committee of the American Heart

**The committee was composed of representatives of the First (Columbia University) medical Division, the Second (Cornell University) Medical Division and the Third (New York University) Medical Division of Bellevue Hospital. A paper giving some of the results of the work was presented at the Forty-Fifth Annual Meeting of the Association of American Physicians, May 6, 1930, by Niles and Wyckoff, entitled, "Studies Concerning Digitalis Therapy in Pneumonia".)

TABLE III.
PRICES OF DIGITALIS PREPARATIONS PER CAT UNIT

Powdered Leaves	Manufacturer	Trade Name	Catalogue Price	Cost (Hospital)	Cost (Druggist)	Prescription Prices	
						A	B
Capsules	Burroughs Wellcome & Co.	"Digifoline"	(25) \$0.018	(1000)	(100) \$0.011	\$0.050	\$0.017
	Ciba Co., Inc.		(25) 0.038	(25) 0.031	(25) 0.035	0.060	0.060
	Davies, Ross & Co.		(100) 0.030	(100) 0.024			
	Lederle Laboratories, Inc.		(35) 0.013	(100) 0.019	(35) 0.043	0.043	0.021
Tablets or Pills (gr. 1½)	Eli Lilly & Co.	"Digilusin"	(100) 0.025	(1000) 0.013	(20) 0.063	0.063	
	Eli Lilly & Co.	"Digilusin"	(40) 0.018	(40) 0.015	(40)		0.019
	Merck & Co., Inc.	"Digitan"	(500) 0.014				
	Merck & Co., Inc.	"Digitan"	(12) 0.050	(12) 0.038	(12) 0.083	0.083	0.070
Capsules	Parke, Davis & Co.	"Digifortis"	(50) 0.015	(50) 0.013	(1000) 0.024	0.047	
	Upjohn Co.	"Digifortis"	(30) 0.013	(30) 0.011	(50) 0.013	0.025	0.020
	Upjohn Co.	"Digitora"	(30) 0.013	(30) 0.011	(30) 0.013	0.050	0.026
	Eli Lilly & Co.		(1000) 0.006	(1000) 0.005	(24) 0.031	0.063	0.052
Capsules	Upsher Smith Co.		(24) 0.031	(24) 0.031			
	Upsher Smith Co.		(1000) 0.027	(500) 0.024		0.056	0.052
Capsules	Burroughs Wellcome & Co.	"Digifoline"	(oz.) 0.015	(oz.) 0.013	(oz.) 0.013		0.028
	Ciba & Co., Inc.		(pint) 0.006	(pint) 0.005			
	Eli Lilly & Co.		(oz.) 0.032	(oz.) 0.026	(oz.) 0.030	0.050	0.050
	Eli Lilly & Co.		(oz.) 0.022	(oz.) 0.017	(oz.) 0.013		
PUNCTURES	Eli Lilly & Co.	"Digilusin"	(pint) 0.006	(pint) 0.005	(pint) 0.004		
	Eli Lilly & Co.	"Digilusin"	(oz.) 0.020	(oz.) 0.017	(oz.) 0.017	0.033	0.033
	Merck & Co.	"Digitan"	(oz.) 0.050	(oz.) 0.028	(oz.) 0.067	0.067	
	H. K. Mulford & Co.	"Digitan"	(pint) 0.006	(pint) 0.003	(oz.) 0.033	0.013	0.025
PUNCTURES	H. K. Mulford & Co.	"Digitol"	(oz.) 0.017	(oz.) 0.015	(oz.) 0.015	0.033	0.028
	Parke, Davis & Co.	"Digitol"	(pint) 0.006	(gal.) 0.002	(pint) 0.004	0.033	0.013
	Parke, Davis & Co.	"Digifortis"	(oz.) 0.015	(oz.) 0.011	(oz.) 0.011	0.028	0.019
	E. F. Squibb & Sons	"Digifortis"	(oz.) 0.022	(oz.) 0.013	(oz.) 0.013	0.028	0.022
FOR INJECTION	Upsher Smith Co.		(pint) 0.006	(pint) 0.004	(pint) 0.003	0.033	0.022
	Upsher Smith Co.		(oz.) 0.025	(oz.) 0.016	(oz.) 0.016	0.045	0.050
	Ciba & Co., Inc.	"Digifoline"	(5) 0.192	(5) 0.126	(5) 0.192	0.300	0.300
	Ciba & Co., Inc.	"Digifoline"	(100) 0.157	(100) 0.126		0.350	
AMPULES (1 c.c.)	Hoffman-La Roche, Inc.	"Digalene"	(6) 0.116	(6) 0.092	(6) 0.116	0.250	0.233
	Eli Lilly & Co.	"Digilusin"	(6) 0.015	(6) 0.128	(6) 0.128		
	Merck & Co., Inc.	"Digitan"	(6) 0.142	(200) 0.075	(6) 0.125	0.210	0.250
	Parke, Davis & Co.	"Digitalone"	(12) 0.092	(12) 0.078	(6) 0.125		
AMPULES (1 c.c.)	H. K. Mulford & Co.	"Digitos"	(12) 0.104	(12) 0.033	(12) 0.104	0.167	0.146
	Hoffman-La Roche, Inc.	"Digalene"	(15 c.c.) 0.067	(15 c.c.) 0.33	(15 c.c.) 0.058	0.100	0.083
	H. K. Mulford Co.	"Digitos"	(4 c.c.) 0.063	(4 c.c.) 0.057	(4 c.c.) 0.063	0.100	0.088
	H. K. Mulford Co.	"Digitos"	(4 c.c.) 0.063	(4 c.c.) 0.057	(4 c.c.) 0.063	0.100	0.088

Note.—The notation in brackets at the left of each price quotation represents the quantity from the price of which the price per cat unit is calculated.

A and B under the heading "Prescription Prices", represent respective city drug-stores. The prices recorded were gathered from the catalogues of the manufacturers, and through visits to the pharmacy departments of several hospitals and city drug-stores. In compilation of this data, the greatest possible care was taken to avoid error in the calculation of prices. Since the prices of drugs are subject to change from time to time, there is a possibility of some changes having taken place since publication of this article.

Association. These recommendations are, as follows:

(1) That tablets or capsules of powdered digitalis leaves be dispensed in all cases where digitalis is indicated, except in emergencies.

(2) That such digitalis preparation be standardized by a recognized method of assay, such as the cat or frog, for biologic potency, but that efforts be made to secure uniformity of activity, so far as possible, by adhering to one of these methods of standardization.

(3) That the digitalis be further standardized for its absorbability and efficacy by administration to selected patients suffering with auricular fibrillation.

In conclusion, we wish to stress that intelligent administration of digitalis calls for knowledge regarding the pharmacologic action of the drug; and that the limitations of digitalis therapy must also be recognized. The practitioner should select for use one digitalis preparation which has been carefully assayed for biologic potency, rather than to try different brands indiscriminately. Through intelligent use of one particular preparation over a period of time, its behavior will become well understood, and better results will follow its administration.

SUMMARY

(1) The total amount administered, rather than the form in which it is given, is the vital point in securing desired results in the administration of digitalis.

(2) *Full digitalization* means the administration of an amount of the drug sufficient to secure beneficial changes in the circulation, or to induce symptoms of toxicity.

(3) The therapeutic and toxic effects of digitalis are briefly reviewed.

(4) Intelligent administration of digitalis calls for knowledge regarding pharmacologic action of the drug.

(5) The benefits from digitalis are effected through an increase in tone of the cardiac fibers, in the extent of ventricular contraction, and through slowing of the ventricular rate.

(6) Three common methods of administering digitalis are presented.

(7) Digitalis therapy has distinct limita-

tions. Definite benefit from digitalis can be expected only in certain types of cardiac disease.

(8) Much confusion arises from the large number of proprietary and special digitalis preparations.

(9) For the best results, select a preparation preferably in capsule or tablet form, properly assayed for biologic potency and clinical absorbability, and administer it intelligently, realizing that each patient presents a problem in himself.

SOME PROBLEMS IN THE CARE OF INDUSTRIAL EYE INJURIES

ELBERT S. SHERMAN, M.D., F.A.C.S.,

Newark, N. J.

Compensation for "personal injury to an employee by accident arising out of and in the course of his employment" has been provided for by legal enactment in nearly all parts of the United States during the past 20 years. Workmen's compensation acts were first adopted in this country in 1911 by 5 states, of which New Jersey was one. Since then nearly all of the other states have fallen into line. At first regarded as a social and economic experiment, this form of legislation is now almost universally accepted as highly humane, beneficent and practical. One of its most important and far-reaching results has been the great reduction in number of accidents through safety engineering and safety-first campaigns. Aside from the direct beneficiaries, these laws have been a greater boon to the medical profession than to any other class. Formerly, as those of us who have been in practice more than 20 years know, the large majority of industrial injuries were cared for in the hospitals, clinics and elsewhere, without pay. In most cases the employer, under the common law was not liable and refused to assume liability, and the workman was able to pay little or nothing. Now, medical and hospital services and medicines are a first charge against the patient, and the

physician can be sure of being paid a reasonable fee provided he complies with a few simple requirements of the compensation act.

The president of a large Casualty Company recently stated that his company expended \$1,578,302 in 1928 for surgical and hospital fees in the treatment of industrial injuries. He said if other companies paid in the same proportion they would have paid the substantial sum of \$27,000,000 during 1928 to the medical profession under workmen's compensation policies alone. According to the report of the National Safety Council, there are 3,250,000 non-fatal industrial accidents a year. A considerable proportion of these are eye injuries.

The compensation laws have been largely responsible for the creation of a new specialty; that of industrial or traumatic surgery. At first, this new field in medicine was shunned by many of the better men in the profession; the fees were comparatively small and very often some of the undesirable methods of competitive salesmanship were used in obtaining this kind of practice. Mediocre work and unsatisfactory results were inevitable. Gradually the insurance carriers and large employers began to realize that, from an economic as well as a humanitarian standpoint, it was to their interest to employ the best surgical skill available. Illustrative of this the following quotations from an address by Mr. F. Highlands Burns, President of the Maryland Casualty Company, before the Board on Traumatic Surgery of the American College of Surgeons are apposite: "Through ignorance or lack of foresight, up to the time workmen's compensation went into effect in this country, the large majority of casualty companies did not take the interest in the question of surgical attention they should have. Under their policies, they were responsible for the cost of the first aid only. The majority of companies did not recognize that a man who had received proper surgical attention and made 100% recovery could not secure as large damages for which the companies were liable as one who had been treated by an unskilled practitioner and, as a result, was left with a permanent disability. It also forces me reluctantly to say that the companies did not in

those days look at it from the humanitarian standpoint as they should have done, but in defense of the companies it can be said that they did not have much choice, as the injured was allowed to have any medical man he desired. In the large majority of cases he had his own doctor, who in many cases was not a surgeon, much less a skilled one, the result being disastrous to the injured. If the number of cases could be known in which a simple injury resulted in death, the loss of a hand, an arm, a foot or leg, because of infection or other complications due to careless or ignorant surgical attention, we, I am sure, would be appalled. Again I am sorry to have to admit that when workmen's compensation laws were first enacted, some of us, at least, did not recognize the importance, from either a humane or business standpoint, of seeing that the injured received the best surgical attention possible. I am glad to be able to say that day has passed. The insurance companies and industry are rapidly getting the humanitarian standpoint, and though large financial institutions are popularly supposed to be without heart or soul, they are still administered by human beings, and it, to me, would indicate an impossible callousness for us to fail to recognize the vast humanitarian aspect of the whole problem of industrial injuries, even before we grasp the financial significance. * * * * The modern insurance company no longer considers it economy to organize its staff of surgeons on the basis of low fees. There is a sincere desire to give to the industrially injured the highest grade of surgical care that can be secured. Class consciousness still exists, and in many instances labor has been distrustful of the sincerity of employers and insurance carriers in this effort. Barriers of prejudice are being broken down, however, and, as the years go by, we see a definitely increasing tendency on the part of workers to accept the good offices of employers or their insurance carriers, especially with reference to the treatment of injuries."

Similar views are now held and expressed by many other insurance officials, although some are not yet equally enlightened and progressive. As a result of this change in the at-

titude of the insurance companies, an increasing number of competent and honest surgeons are doing compensation work. Some companies have adopted the policy of designating, or recommending to their assured, certain approved men in different communities. To some extent, this is eliminating the incompetents.

Recognizing the necessity of putting industrial and traumatic surgery on a higher ethical and technical plane, the American College of Surgeons, in 1926, established a Board on Traumatic Surgery. After making comprehensive surveys of the situation in several large industrial centers, the Board last October adopted a standard for medical service to be required of hospitals, industries, insurance carriers and others desiring recognition of the College. It is now compiling a list of competent men throughout the United States who are eminently qualified to treat traumatic cases. Up to last October, approximately 12,000 names had been listed whose credentials and qualifications were known. Of these, more than 8500 were not members of the College. This brief reference to the activities of the Board is made merely to call attention to this movement within the profession, which will undoubtedly be an important factor in putting industrial surgery, which is still in a state of evolution, on a more efficient and respected basis.

Because of the compensation laws, industrial injuries are in a class by themselves. Since the New Jersey compensation act was passed in 1911, it has been amended or supplemented nearly every year, some of these changes being the result of the work of this society. The law is still unsatisfactory to many, and other changes will doubtless be made, but in the meantime we should remember that no one's personal opinion can be a substitute for the law. It applies equally to the employee, the employer, the insurance carrier and the physician, and confers certain definite obligations, as well as benefits, on all of them. Industrial compensation is here to stay, and with it industrial surgery. Those who care to take this class of work, and apparently nearly every one does, should familiarize themselves with the law and be willing

to be bound by its provisions, or leave the work alone. Failure to do this is a cause of much misunderstanding and dissatisfaction.

Many physicians seem to have the impressions that medical fees can be dictated by the insurance carrier. This is not so. The law is fairly explicit on this point, yet very elastic. While it specifies a maximum fee of \$50 for medical attendance in any one case, in addition to a like amount for hospital service, the Workmen's Compensation Bureau is empowered, on application by the workman or by the physician who treats him, to order the payment of anything necessary and reasonable in excess of this amount. My personal experience has been that this application is seldom necessary, as employers and insurance carriers, upon being informed of the needs of the case, have almost invariably paid the bill in full, and without question.

The law also says (section 14): "All fees and other charges for such physicians' and surgeons' treatment and hospital services shall be reasonable and based upon the usual fees and charges as prevail in the same community for similar physicians', surgeons' and hospital services." Those who have an exaggerated opinion of the value of their services, and do compensation work without regard to this legal principle, are likely to have disputed bills. So, too, is the doctor who thinks he must make a "good thing" out of the occasional compensation case that falls into his hands, because the bill is being paid by a "big corporation" or a "rich insurance company". These practices tend to destroy the spirit of confidence and coöperation that should exist between the medical profession and insurance carriers. For the latter, I hold no brief, but they are rendering a useful, indispensable service and are entitled to fair treatment. They have the shortcomings incident to a comparatively new business, many of which are being corrected. The common belief that compensation insurance is profitable, is erroneous. I have recently learned that most companies make no profit from it and some lose money. Only the other day the Commissioner of Banking and Insurance in this state granted an increase in rates on workmen's compensa-

tion insurance because the losses sustained in New Jersey in 1929 were 15% higher than the allowance made in insurance rates. At the same time he said—"The expense for medical hospital and surgical aid has increased each year for the last 10 years without the slightest suggestion of a turn, or, indeed, any tendency to remain stable at any level whatever."

I do not want to be misunderstood as advocating "cheap" work in compensation cases. My policy has been to make a charge that is fair to the employer or carrier, to myself and to other physicians in the community who are doing the same kind of work. The companies are willing to pay well for efficient work that returns the injured man to his job as soon as possible with a minimum amount of permanent disability. Referring to this subject in an address before the Board on Traumatic Surgery of the American College of Surgeons, Mr. George E. Turner, Counsel of the Casualty Information Clearing House, said: "Regardless of any general or particular impression of opinion to the contrary, the insurance companies do not want *cheap* surgical work done. That the best service obtainable should be and is the most economical, seems sufficiently obvious to remove any question or doubt on the subject."

When medical bills are disputed, we have in New Jersey a very practical, efficient, and so far as I know unique plan for their adjudication. When Dr. Andrew F. McBride was Commissioner of Labor he caused to be established in each large community a medical bill committee. Quoting Dr. McBride: "These committees are composed of 3 doctors, a representative of the self-assured and the carriers, a representative of the county medical society, and the medical director of the (rehabilitation) clinic. Through the moral suasion exerted by this impartial committee much good has been accomplished for the doctor and the hospital and for the carrier." This is only one of a number of useful reforms and innovations introduced by Dr. McBride during his administration.

Has the employee the right to select his own physician? This question is the cause of much discussion, often more heated than calm. Con-

cerning this matter the law is very clear. Section 14 of the Act says: "The employer shall furnish to the injured workman such medical, surgical and other treatment", etc. * * * * "If the employer shall refuse or neglect to comply with the foregoing provision, the employee may secure such treatment and services as may be necessary and as may come within the terms of this paragraph and the employer shall be liable to pay therefor; *provided, however*, that the employer shall not be liable for any amount expended by the employee or by any third person on his behalf for any such physician's treatment and hospital services, unless such employee or any person on his behalf shall have requested the employer to furnish the same, and the employer shall have refused or neglected so to do." Exception is made in cases of injury occurring under such conditions as to make notification impossible. Whether the employee *should* have the right to select his physician is a very different question. Much can be said both for and against it. I think he should have the right to have his family physician if he so desires, but as the employer or carrier is paying for the medical services, as well as for the loss of time and for permanent disability, if any, they should have the privilege of observing and if necessary advising as to the adequacy of the treatment. As a matter of practical experience, in the large majority of cases the injured man welcomes and readily accepts the medical services furnished by the employer or insurance carrier. If left free to go anywhere he would be as likely to select a chiropractor or a quack as a competent physician. However, the practice of some insurance companies of arbitrarily taking a case away from an attending surgeon, irrespective of his competence and honesty, and transferring it to some one else, is to be condemned. I have many times refused to take such cases, at the same time pointing out to the company the folly and unwisdom of its request. This practice is decreasing.

All that has been said concerning industrial surgery in general, applies equally to industrial eye surgery. The industrial eye surgeon is merely an ophthalmologist who is equipped

for and willing to do this class of work. As most of the patients are sent to his office, rooms for their reception and treatment, separate from those used for other patients, are a valuable adjunct. An office nurse familiar with the details of treatment, including visual tests and measurement of visual fields, and the ability to take care of the routine reports, reduces to a minimum the time that the surgeon is obliged to give the ordinary compensation case. Only a small percentage of eye injuries have to be hospitalized, although the proportion of hospital cases varies with different men according to their office facilities, experience, mental attitude and other considerations.

It is difficult to get accurate statistics on the proportion of eye injuries in industrial accidents. This varies greatly with the nature of the industry. In large industrial centers, like Newark, the iron and steel industries and building trades head the list. In Pennsylvania, under the first 8 years of the Workmen's Compensation Act, more than 40% of all compensation awarded for permanent injuries was for eyes. Of the 100,000 or more blind persons in this country, approximately 15% lost their sight as the result of industrial injuries. A much larger number have been partially disabled and handicapped for life from the same causes. Eye injuries are the most serious of non-fatal industrial accidents. While many of them from their nature, location and extent cause immediate and hopeless visual loss, the large majority are superficial wounds of the cornea, from foreign bodies and other causes, which if promptly and properly treated recover quickly without loss of function, but if neglected or unskilfully handled may cause months of disability and permanent loss of vision. Most industrial plants and insurance carriers have learned, from expensive experience, the importance of referring all eye injuries to an eye surgeon. A few years ago we frequently saw eyes that had been man-handled by a fellow workman or a first aid department in an attempt to remove a foreign body; eyes that were red, painful and more or less denuded of corneal epithelium, and sometimes infected. This is now unusual.

Nowadays such cases are more often the result of the good-intentioned but bungling treatment of a neighborhood physician to whom the workman has gone after working hours.

If a foreign body embedded in the cornea is removed promptly and skilfully, it should seldom cause either temporary or permanent disability. Fortunately, most particles of steel and emery are sterile when they strike the eye. If the foreign body is removed without undue trauma and the wound protected by the application of bichloride of mercury ointment, healing will usually be complete in a few hours as the corneal epithelium regenerates very quickly. No dressing or other protection is needed in the majority of cases. More severe injuries, particularly if they are deep or in the pupillary area, should have a dressing, and sometimes atropin, but indiscriminate and injudicious use of atropin, by paralyzing the accommodation for a week or more, causes much loss of time. It is often used unnecessarily.

Infection and serious ulceration are more likely to follow injuries by particles of stone, cement, plaster, etc. Occasionally, an apparently trivial injury of the cornea or a contusion of the eyeball will be followed by changes in one or more of the tissues of the eye out of all proportion to the severity of the trauma. The uveal tract is most often affected, the cornea less frequently. The more common manifestations are iritis, iridocyclitis, acute chorioiditis, ulceration of the cornea that refuses to heal or quickly recurs, and interstitial keratitis. These are some of the conditions that I have repeatedly seen, following very slight and superficial injuries. The underlying cause is usually focal infection. Sometimes the source of the infection is in the tonsils, but more often it is about the roots of teeth. When it is located and removed, improvement in the eye condition is prompt and rapid. Another cause is syphilis. Tuberculosis is probably an occasional factor. A latent glaucoma may take on an acute form following a superficial injury of the eye.

At the last meeting of the American Academy of Ophthalmology and Oto-Laryngology, in discussing a paper by Black and Haessler

on post-traumatic ocular tuberculosis, Edward Jackson said that we have only learned within relatively few years the effect of trauma in producing outbreaks of interstitial keratitis. He feels sure that he has seen several cases from slight injury of the cornea.

Under the doctrine of acceleration or aggravation of a preëxisting disease, the compensation courts usually make an award for any disability occurring in this class of cases, provided any probable relation between the injury and the disease can be established.

It is the duty of the eye surgeon to determine whether such relation exists. This is often difficult. Sometimes an injury is merely alleged and no physical evidence of it can be found. A workman with an inflamed eye will sometimes say that he had a foreign body in the eye a few days previously, but when closely questioned can fix no particular time when the accident, if any, occurred and may admit that he *thought* there was something in the eye because it was uncomfortable. In most of the doubtful cases the employer or carrier accepts the liability.

One case that I saw contested was that of a young girl, employed in the factory of a large self-insured corporation. Her eye became mildly inflamed and she alleged that it had been struck a few days previously while at work by a shoe-string. She had not reported the accident and no one else knew of it. When I saw the eye there was an iridochorioiditis, with many deposits on Descemet's membrane and a large exudate in the chorioid at the macular region. There was no evidence of injury on the cornea or elsewhere. No source of focal infection could be found except a suspicious upper molar on the same side as the affected eye. A dentist advised removal of the tooth but the patient delayed having this done for several days. In the meantime the eye became very much worse. When the tooth was removed a large apical abscess was found. Immediately, the deposits on Descemet's membrane, which had become very dense, began to disappear and in a week were nearly gone. The chorioiditis was subsiding but had already done irreparable damage. A few months later, the common sequel of these

cases, a complicated cataract, developed. The girl brought suit in the compensation court and was given an award for total loss of an eye. The decision was probably unjust, but I believe that such a condition as this can be excited by a superficial injury in an eye predisposed to it by focal infection. This case illustrates the inclination of the compensation courts to decide doubtful cases in favor of the workman. This is as it should be, but it enables astute lawyers, with the aid of accommodating medical experts, to raise enough doubt, in some cases where there should be no doubt, to get a favorable verdict.

One of the duties incident to industrial surgery is the making of reports. These are necessary. In the case of insurance companies, the surgeon's report is the authorization that the claim departments must have before making payments for temporary or permanent disability or for paying medical and hospital expenses.

Concerning reports, Dr. Lazenby, Chief Surgeon of the Maryland Casualty Company, says: "Among the duties which befall the surgeon doing industrial work is the making of reports. To the busy man this represents a burden, unless he does some volume of industrial work and has his office so organized that the reports are made automatically. Insurance carriers do not ask reports with the idea of fiendishly heaping extra work on the doctor. I assure you it is no more pleasant to read the average report than it is to make it out. Insurance carriers ask reports because they simply must have them. You all know that when a man receives an injury in the course of his employment, he is entitled to receive a certain percentage of his wages during the period of his disability; this money stopping when he is able to return to work without permanent disability, and continuing for a specified time in cases where there is a permanent defect. In view of the fact that the insurance carrier pays the injured workman compensation almost entirely upon the report of the surgeon and that it ceases payment often entirely upon the same authority, it must be perfectly obvious to you that their reports are necessary. In fact, they are far more necessary to the

injured man, your patient, than they are to the insurance carrier. No carefully conducted business with no margin of profit, like the Workmen's Compensation business, can be run without a check upon the details, and you can readily see how impossible it would be to pay compensation unless competent authority for it existed."

Several years ago, I devised a small blank form, for use in reporting minor eye injuries, that has simplified the matter and has been a great time saver in my office. It is a small sheet $5\frac{1}{2}$ in. square, with blank spaces for the name of the workman, the diagnosis, when to return for further treatment, temporary disability, permanent disability and the time of arrival at and departure from the office. Filling it in takes but a moment of the office assistant's time. If further treatment is required, another report is given at each visit, thus keeping the employer informed as to progress of the case. The workman takes the report back with him, in a sealed envelope, and the employer, if he is insured, sends it to his insurance carrier. In the large ma-

able period after the ability to work has been restored.

Most injured workmen are anxious to return to their jobs as soon as they are able to work. Others are unwilling to work as long as they can draw compensation, particularly if they are members of 1 or 2 sick benefit societies. They magnify their symptoms and sometimes seem to develop a neurosis or psychic inability to work. Often malingering is resorted to, in the hope of obtaining a substantial award for permanent disability. In these cases the surgeon must take a firm stand and stop the temporary compensation by reporting the man able to work.

When there is likely to be some permanent disability, a final report should not be made until function has been restored as fully as possible. In most cases it is evident at once that there will be no disability; in a few it can be seen, from the nature of the injury, that a total loss is certain. In other cases, after the acute symptoms have subsided, sufficient time should elapse for the gradual improvement, which often occurs and continues over a period of months, or for the development of sequels, before making a final examination. This applies particularly to corneal injuries, iridocyclitis, opacities in the lens and vitreous, partial optic atrophy and paralysis of the ocular muscles, both external and internal.

An estimate of the permanent visual loss caused by scars of the cornea should never be made during the first few weeks after the accident. Some scars that at first are fairly dense and extensive almost completely disappear in time. I have seen cases of industrial blindness from corneal scars improve to 20/30 Snellen or better within a year. Likewise, diplopia from a partial paralysis of ocular muscles often clears up slowly but definitely in time.

The evaluation of visual loss resulting from an injury is often complicated by the existence in the same eye of a noncompensable or pre-existing defect. This may be a refractive error or a pathologic change. McAuliff has shown that such defects are present in over 20% of workers. In these cases it is sometimes impossible to say what percentage of

ELBERT S. SHERMAN, M.D.

A. RUSSELL SHERMAN, M.D.

671 Broad Street

Wiss Building

Newark, N. J.

REPORT OF EYE INJURY

Name— Date

Shop No.

Injury—

Further treatment—

Temporary disability—

Permanent disability—

Arrived at office Departed from office

jority of cases, this brief report is all that is required. In more serious cases a special report is sent at the conclusion of treatment. The final report should include a statement as to when the employee was able to return to work. This determines the period of temporary disability. There should also be an estimate of the percentage of permanent disability. The period of temporary disability is the time during which the employee is unable to work and does not necessarily cover the whole period of treatment. Obviously, treatment may be needed in some cases for a consider-

the total visual disability is due to the recent accident. The workman will seldom admit that the eye was previously defective. If the case is seen soon after the accident, old defects can usually be recognized as such and noted, but when, as often happens, it is sent weeks or months later for an opinion as to the percentage of permanent disability the difficulties may be very great. Attempts are often made to capitalize such conditions as old corneal scars, lenticular opacities that are manifestly senile, amblyopia *ex-anopsia*, old trachoma and many others. I have recently seen 2 cases of old trachoma with pannus attributed to recent trivial eye injuries, with stout denial of previous eye trouble.

An injury of the cornea leaving a scar on or near an old scar, both of which are sufficient to account for some impairment of vision, often causes a difficult problem. If there is no record of the visual acuity before the accident we can only use our best judgment. These cases are not uncommon and illustrate the importance to employers of having a simple visual test made of all new employees, which should be repeated periodically. Any intelligent person, such as an employment manager or a nurse, could quickly be taught to make these tests. They would not only serve as a guide in assigning the employee to work for which he is visually fitted, but might furnish valuable information in determining the visual loss from subsequent injuries.

In cases of recent injury in which there is any possibility of a claim arising, a visual test should be made at once or as soon as the condition of the eye permits, and an examination made to determine the cause of any impairment of vision not sufficiently accounted for by the injury, and a record made of old corneal scars or other pathologic conditions and refractive errors. To avoid being imposed on I have for a long time, when testing the vision of a workman or other person claiming impairment of vision from an accident, made it a practice to begin the examination with a malingering test, which is always more effective if done promptly, before the patient has time to become familiar with the test chart and otherwise orient himself. Neglect of this

precaution very recently caused me, much to my chagrin, to be duped for several weeks by a girl of 17. Following a blow on the right temple, her right eye became nearly blind. In the absence of objective symptoms, I assumed that she had a fracture involving the optic foramen causing pressure on the optic nerve, a very common result of blows in the temporal region. A few weeks later, no change in the optic nerve having appeared, I became suspicious and put the girl through a malingering test. This clearly demonstrated that the eye had normal vision, and spoiled an otherwise perfectly good lawsuit.

Reports on permanent visual loss in compensation cases (in this state) should be made in terms of percentage of disability and not in Snellen's fractions. The significance of the latter is not understood by laymen, and by few physicians except ophthalmologists, and they cause confusion and misunderstanding. In the phraseology of the law "percentage" is used constantly. Snellen fractions are not mentioned. An exception to this rule should be made in cases coming before the U. S. Employees' Compensation Commission under the Longshoremen's Act. Here the deputy commissioner computes the percentage of loss from data furnished by the ophthalmologist. The Compensation Act in this state does not direct how the percentage of disability shall be determined. It does not even define normal vision or industrial blindness. All this is left to the eye surgeon.

In 1923, this society appointed a committee to formulate a method for computing the percentage of disability resulting from industrial eye injuries. The report which was presented at the 1924 meeting was adopted and recommended for use throughout the state. Computations made in accordance with the suggestions of the report have been accepted without question by the compensation courts. One purpose of the report was to bring about a uniformity of procedure, which was badly needed at that time. How well it has served that purpose most of you know. At that time the A. M. A. plan for evaluation of industrial eye injuries was being formulated but it was not adopted until 1925. Had it appeared

earlier, this society would probably have adopted it. The advisability of substituting the A. M. A. plan for ours is a question that it might be well for this Section to consider.

Time does not permit the discussion here of the relative merits of the two plans. The matter could be referred to a committee for careful consideration and a report submitted at the next meeting of the society.

DISCUSSION

Dr. Charles H. Schlichter (Elizabeth): Dr. Sherman is to be congratulated upon bringing this subject before the Section. There is a great deal of misunderstanding between the insurance companies and the doctors, with perhaps faults on both sides.

In regard to choice of the surgeon, I think that matter is being handled, and handled very well, by the Traumatic Board of the American College of Surgeons, in compiling a list of men competent in the various fields of traumatic surgery, which list, I presume, is at the disposal of the insurance carriers and the employers. The insurance companies are not entirely without fault, because in various communities they have shopped around to get men who will do the work for the least money, and I know in our particular neighborhood there are men doing traumatic surgery who cannot get on the surgical staff of any of the hospitals. Whether that pays the insurance carrier, or not, I don't know. Many of us think not. Anyway, in consequence, the latter men have been made to feel that they don't want to bother with this work. I think that is bad for the patient, bad for the carrier, and bad for everybody concerned.

The right of the injured man to select his own physician is a debatable question. We have all seen, where that has been done, some surgeons have nursed cases along, rendered excessive bills, and were manifestly unfair; to say nothing of the fact that some were not competent to treat that particular type of injury.

Now, to get down to our work on the eye, I think the first thing to get hold of when a patient comes into your office is a complete history (to use the army phrase) of how, when, and where this accident occurred. Then, to attend your patient. In the meantime, get his confidence, so that you can be the middleman and very often the arbitrator between the carrier and the patient. If you do that, you will very frequently save yourself a lot of trouble in court, and save the carrier a lot of expense, and you will save the injured man a lot of money because he won't have to divide with a lawyer.

Getting down to the question of the use of atropin, I feel, in a way, as Dr. Sherman does about it, but I would rather err on the side of putting a drop of atropin solution in an eye where the cornea has been injured, particularly where I suspect that the injury has been caused by an unclean foreign body. It is my custom to use mercurochrome, about 2%, instead of bichloride, because the latter is not an antiseptic. Eye men are 25 years behind the times in the use of bichloride. The general surgeon has given it up long, long ago. It coagulates albumin, does not penetrate, and does not kill bacteria. But the newer antiseptics, such as the dyes, of which mercurochrome is one, do penetrate tissue, do penetrate and kill bacteria, and are real antiseptics.

It is always my practice to ask these patients whether they have had an injury before. Many times they will tell you "no", but when you look at the cornea, you will easily see that something had happened there before.

I, too, have seen a number of cases where there was a question of doubt as to the injury, where an old glaucoma existed or there was a latent iridocyclitis which had been lighted up by the injury. In cases where iritis or iridocyclitis develops, you will usually find, if you go deeply into the history, that you have some focal infection, either in the teeth, tonsils, gall-bladder, or perhaps, in a woman, an old cervicitis, or even a prostatitis in a man. In 1 case of very stubborn iridocyclitis we found an abscess of the prostate. That is worth looking into, because this case caused me a lot of worry until we located the trouble.

As to vision: I believe with Dr. Sherman, that it should be taken as soon as possible after the injury, and later the vision should be taken again. It is my experience to find that, due to infiltration which isn't seen with the unaided eye, but which we could see with the slit-lamp or a powerful loupe, there is a haziness of the cornea and the patient doesn't see well, not because of the size of the actual scar but because of the infiltration in the meshwork of the cornea. Therefore, if you take your vision at some later time, you gain, first, the fact that this infiltration has probably been absorbed, and secondly, you sort of take the man off his guard if he is inclined to be a little bit fussy about his loss of vision.

One company for which I do some work, sends with the patient a return postal card, which we have found very helpful. All the information required is on this folded postal card, stamped and addressed. All I do is fill it out, sign it and send it in to the company.

A thing that often bothers me is the question of a preëxisting refractive error. A man is injured; he is a hyperope; approaching 40; accommodation is beginning to lag; but he hasn't noticed that his vision isn't as good as it was when he was 20. He may be perfectly honest in his statement. And yet, you take his vision and you will find he sees perhaps 20/50. He thinks he has been seeing pretty well. He blames the loss of vision, or his presbyopia, on the injury. I have had a great deal of trouble to convince even learned members of the Bar that this thing existed before. Some cannot be convinced. I don't know how you are going to handle it. It is a matter of psychology. We have a plan in mind in Union County to have 1 or 2 meetings a year with the Bar Association to talk over these points which they do not understand, and many of the things in their line which we do not understand.

I believe with Dr. Sherman that there should be a campaign, possibly through the Labor Department—letters sent to every employer in the state—that the vision of each individual should be taken and recorded when he is first employed. I think it would save everybody a lot of trouble and save the employers and carriers a lot of money.

I happened to be in the Compensation Court some 3 or 4 years ago and saw a man on the stand who was telling very graphically how his eye was injured; he was industrially blind in one eye. I looked at him a little while and recognized him as a man I had treated 2 or 3 years before. He had gotten a foreign body in his eye, and the foreign body had been removed by a fellow workman. He had fussed around with it for a week or so. He had a very severe infection in the cornea, and he was industrially blind as the result of a large

scar. He had been compensated for that eye, but he had gone to work in another factory under a different name, and there he was. I went to the lawyer of the insurance company and told him that if he wanted to, he could put me on the stand. I said, "I know this man and I know that the vision was lost some 3 or 4 years ago".

In justice to the carrier and to the employer, it is only fair that we should take the trouble, if we are going to do industrial work, to make a most careful and painstaking examination and report and furnish the employer or carrier, if he is insured, with all the data that we can give him on the case. I think it is also fair to try and act as mediator between the injured man and the carrier, so as to play fair to both. If we do that, we will keep a lot of these cases out of court, and we can settle them in a way that is fair to everybody.

Another thing that we should pay a great deal of attention to, is to try to get the man back to work as soon as possible. The psychology of it, alone, is good for the man. He doesn't magnify his injury and it, I think, makes him a better citizen and a better workman.

In other words, I think we want to realize that this compensation work not only puts upon us the responsibility as physicians in the broadest sense of that word, but as citizens, in helping to solve an economic problem.

Dr. Andrew F. McBride (Paterson): Before beginning this discussion, I want to offer an apology to Dr. Sherman, and likewise to your Section here, because I was not able to secure sufficient time to fully read his paper. That portion of it which I had time to peruse, I want to commend him for. It was admirably gotten up and I think it is going to be very, very helpful and useful, and I am sure that it will appear in the Journal in some of its future issues, and be of great value to all of the physicians in the state.

I am vitally interested in the question of workmen's compensation. I happened to have charge of that branch of the state's work for 5½ years. When I first began the work, expecting to stay but a short time, I was rather horrified by the way it was done, and even now I can see much that might be improved. I don't want to appear egotistic, but I don't see how anyone can administer that work unless he be a physician of a great deal of experience and training.

The rule in the department when I was there, was that every injured workman would receive that measure of relief that the act provided for—no more, but surely no less—and if we were in honest doubt, after proper inquiry, the injured person got the benefit of that doubt.

I quite agree with Dr. Sherman, and with every other physician who gives the matter any thought, that no one should take care of any industrial accident unless in possession of the proper qualifications. Industrial surgery is a branch in itself and should not be undertaken by a physician who hasn't proper training in that line of work, and particularly is that true about injuries to the eye. No doubt some eyes have been lost through lack of proper attention given at the beginning of injury, and I can't conceive for a moment how any general practitioner who is called in a case of eye injury can hesitate for a second to transfer that patient to some competent ophthalmologist.

I think there has been a great deal of error on both sides, however, in the past. I think the compensation work is getting better all the time; I am now talking about the medical phase of compensation work. I don't think that many insur-

ance companies, even today, use the proper precautions regarding the men that they engage to do their compensation work. That statement can easily be proved. I think that is a mistake on the part of the insurance companies, I mean a personal mistake on their part. I don't think that they are doing their stockholders (if it be a stock insurance company) justice when they do that, and I am sure they are not doing justice to the men who give them the business—the employers.

I think there has been a great improvement in that line, but I think that still much more can be accomplished by securing the services of competent men, and by determination of the carrier to give a proper measure of relief to the injured workers after estimate has been made. If that is done, it is going to be a great saver to the carrier and to the employer and it is going to cut down enormously the expense that now goes to carry workmen's compensation.

The carrier is not in business for pleasure, he is in business, the same as anyone else is, for a reasonable return upon his investment. I want to say this, however, that the vast majority of carriers doing business in New Jersey, during the 5½ years that I was connected with the Department of Labor, were fair. I think they never contested a case unless they were in doubt as to the claim of the injured man or his attorney or his doctor.

I think, however, that if we are going to reach the goal that we all desire, more attention will have to be given to medical care of the injured. The carrier, under the act, is compelled to furnish to the injured worker that measure of relief which is adequate and proper. Most of the carriers, trusting to the ability of the medical profession generally, are willing to allow the case to remain in the hands of the family physician. Unfortunately, at times, the family physician is not competent to take care of that particular type of injury, and all too frequently he keeps the case despite the fact that he himself is conscious that someone else might do the work better. I think that is a mistake on the part of the medical man and it should not be allowed to continue, and we, as a medical society, through our component societies, ought to discuss that question frequently and impartially, and point out the seriousness of such doings.

I think that the state, and the employers in the state, and the injured workers were all fortunate in having men like Dr. Sherman, Dr. Schlichter, and a great many others that I could mention, and in being given the benefit of their estimates of disability. I know that I always felt that I was fortunate when I could have men of that type examine injured workmen and pass upon the disability. I felt perfectly certain that these injured people would receive the measure of relief that they were entitled to.

I am sure that there is an awakened consciousness on the part of most carriers to their responsibility in respect to the care of injured workers. Heretofore, as I understand it, the policy of some of the carriers, some of the larger ones, too, that you would think knew better, or ought to know better, was to place the responsibility on some branch of their service other than the Medical Department, often ignoring entirely the advice of their Medical Director or their Medical Division. I think that most of them have seen the error of their ways and have changed in that respect, and they are now paying more attention to that branch of their service. I have frequently conferred with the medical directors of some of the large companies, only to find that they were never consulted

except in the extremity and after the damage had been done.

I was very much interested in what Dr. Schlichter said about the person injured, who, up until the time he was injured assumed that he was in pretty good condition and hadn't noticed that there was much wrong with his vision. That also obtains in regard to every other part of the body. A man is going along at his usual work; he is advancing in age and certain changes are taking place that he doesn't appreciate or doesn't fully appreciate; when he is injured his attention is directly focused on the fact that he cannot do his work as he did before—can't see as well, can't lift as well, or can't do many things as well as he did before. All of those things would have come about perhaps in a short time whether he were injured or not, but he doesn't appreciate that and he doesn't want to appreciate it. I think most of us are unconsciously selfish. We don't mean to be, but if we are doing a job and doing it fairly well and something occurs to us that interferes with the doing of that job, we probably subconsciously ascribe that inability to the injury that we sustained. I think we are fairly honest about it. That is the hard part that we have to cope with in compensation work—the person who believes he isn't getting a square deal, and many of them do believe that. There are many people who do not understand the provisions of the Compensation Act. They think the Compensation Act means that if they are injured, no matter how trivially, they should be supported for the balance of their lives; and it is hard to get that belief out of their minds. Only too frequently they are aided and abetted in their feeling that they are entitled to great sums of money (which they are not under the Act) by some counsel who doesn't understand the Act much better than they do. That is one of the things that has got to be remedied and I think it will be remedied and can be remedied more by the carriers themselves than by anybody else, aided, of course, by the state.

If the carriers will engage the proper kind of medical attention, if they will employ men who are competent in every branch of their work (I am talking about the medical aspect of the work now), much of the confusion and much of the dissatisfaction that obtained in the past will completely disappear.

Of course, you are never going to be able to control the human element in the compensation work. You are always going to find dissatisfied people, no matter what the judgment may be. You are always going to find the malingering who is only too anxious to have an excuse for stopping work. He is going to be ever present, and I have predicted frequently in the past that the day is soon coming when every employer of labor is going to have a *real* examination of all applicants for employment before they are employed. I hate to forecast just what is going to happen when that day dawns, because it is going to make it impossible for a great army of people to obtain employment at all, for the Compensation Act is very rigid in its provision in that once you employ a man, unless you employ him under a certain part of the Act, he is entitled to compensation whether his previous disability was present or not and whether his previous disability might not have caused the accident. If he were a perfectly normal individual, he would not have received the injury that he might receive as a consequence of a disability from which he was suffering. Therefore, you can see the need for care on the part of the employer.

Compensation expenses are constantly mounting, despite the fact that the state of New Jersey, probably as intensively as any other state, is concerned vitally with all sorts of effort to prevent accidents. I know of no state which engages more extensively in accident-prevention work than does New Jersey, and intelligently, too.

But accidents will always occur when the human element is there—they are bound to occur—and I am glad to learn that the carrier is finally appreciating his great responsibility, because he has a great responsibility. The Act says he shall furnish medical and surgical care until the injured is restored to his normal condition or to a condition as nearly normal as it is possible to make him. And I likewise hope that the physician will appreciate his responsibility to the compensation work, and that men who are incompetent—men who are not fully competent, perhaps I had better put it that way—to do industrial surgery, will cease to do it and will devote their efforts along other lines, and that this work will speedily come within the scope of men who are specially trained to do the work; and probably there is greater need for that in the eye injuries than any other branch of medicine. No man, unless he is a trained eye man, should attempt to take care of even the most trivial injury to the eye. He is unfair to himself, he is surely unfair to his patient, and he is unfair to society in general, because the loss of an eye or the loss of both eyes is a terrible affliction—one that never can be overcome, and for that reason we have great responsibility upon us as a profession.

I want to thank you, Mr. Chairman, for having invited me to participate in this discussion, and also I want to express my appreciation for this privilege of taking part in the discussion of Dr. Sherman's paper, and to have been able to visit your Section during this meeting.

Chairman Emerson: I wish to extend my personal thanks to Dr. McBride, and also the thanks of the Section, for coming to us and giving us the benefit of his valuable experience. Thank you!

I now call upon Mr. George E. Meredith, who is a representative of the New Jersey Manufacturers' Casualty Insurance Company. I think it is very important that we doctors should have the insurance company's point of view in a discussion of this kind, and I am going to take the liberty not only to call upon Mr. Meredith to participate in this discussion but I am going to ask him later if, after the discussion by other members of the Section, there are any questions relative to that Act which any member wishes to ask, he will reply. I shall accord him an opportunity to reply to any questions or criticisms before asking Dr. Sherman to close the discussion.

Mr. George E. Meredith: I am here on the invitation of your Committee, and needless to say, I feel that it is a great honor and privilege to be here. My exact place on your program is still somewhat of a mystery to me. I presume that I have been asked because I have been associated with the Claim Department of the New Jersey Manufacturers' Casualty Insurance Company for the past 10 years, and my work has brought me in contact with the problems which have just been presented in Dr. Sherman's paper.

I missed the title of Dr. Sherman's paper, but I think it could well be entitled "The Need for Co-operation Between Doctors and Insurance Companies". In so far as the subject matter refers to my own work it might well be called "Getting

Along With Doctors". A large part of my work requires me to do just that, and up to the present time I have not been entirely unsuccessful, inasmuch as I have not been asked to retreat under pressure when calling upon a doctor to discuss some of the problems which have been considered here.

Dr. Sherman has covered this subject so thoroughly and accurately that it seems there is little to add. However, some thoughts have occurred to me and I offer them only in the thought that they may in a small way help to bring about the spirit of coöperation between employers and insurance companies on the one side and the medical profession on the other, which it seems to me is the main thought behind Dr. Sherman's remarks. I might say, too, that these ideas merely represent my own personal views and are not necessarily an expression of the policy of the company with which I am connected.

The importance of coöperating in filing reports was well developed in Dr. Sherman's paper. As he put it, it helps the insurance company to pay your patient what is properly due him, promptly. But I want to emphasize the importance of fair and honest reports. It is only human nature to say, "Well, he was a good patient, is honest, and has a large family, and I'll try to give him a lift; I know he can see 20/30 on the Snellen chart, but I'll report it 20/40, because that will give him a few more dollars". But the trouble is that this difference is not a few but a few hundred when transposed into dollars and cents under the Compensation Law. Claim adjusters or inspectors necessarily have to check up where that large a discrepancy is possible. The man is referred to another eye specialist and the error is discovered. What is the result? The man, in the end, gets the \$100 represented by 20/30 vision, but he gets it 3 or 4 months late—when a little extra money earlier might have made a cold house warm in the middle of January, or saved a baby's life who died because there were no funds to call in a doctor when he was most needed. Instead of paying the doctor in January, the money was used to pay the undertaker in April.

The reverse situation is equally bad, only it affects the employer or Insurance Company. You may like the company you deal with—it sends you a lot of work, they are good fellows—and you may feel that you should "give them a break". But what happens? On your report you give a figure or percentage which represents \$100. You know it should be \$500. The Company offers the patient \$100 and he turns it down. He goes to the Compensation Bureau. The Company says \$100 is the limit because Dr. Brown said so. The man says he will get a lawyer, and the Bureau encourages him in that idea. He gets one, there is a hearing, and he is given an award for the correct amount and the Company is assessed costs amounting to \$250. Its expenses in defending, not to speak of the bother and waste of time of state officials, attorneys and doctors who could be doing more useful work, amount to another \$250. The total bill is, therefore, \$1000. It could have been disposed of 6 months before with no bother for \$500. The net result is a \$500 loss to the insurance company. The doctor certainly conferred no favor.

Another thing that may puzzle you gentlemen is that you often receive requests from the insurance companies for an itemized bill. I have no doubt that all of you men have had that experience in the past, and the thought probably came to your mind immediately, and naturally, that "the company doesn't trust me; they think I am

a gyp, and they are checking up on me". That strictly is not so—I should not even say "strictly" for it is not so at all—because companies, particularly if their local man operates in this state alone, know most of the doctors. If they don't know them by name they know them by reputation and they know those who are honest and those who are not. That is not the reason an itemized bill is asked for. The main purpose is the one suggested by Dr. Sherman in his paper. A man is paid until the last day that he is treated and is given active treatment. When these matters come up before the Compensation Bureau, the temporary compensation to which a man is entitled is definitely fixed by the dates of treatment—*active* treatment. He is not paid up to the time he is observed or his vision is checked, or something of the sort. That is probably the main reason why you are requested to submit an itemized bill.

Another problem which comes up (I don't recall that Dr. Sherman touched on it in his paper, but it is something that you will meet frequently) is the fact that an adjuster, or investigator, will come to your office on short notice, when you are busy and you don't feel that you should be bothered with work other than your own, and ask you to come to the Compensation Court or some other court to testify. It is hardly fair to the man, first not to greet him courteously, or secondly, to ask him out. In the first place, he is just doing his job. Someone from the main office has asked him to go to that doctor to present a subpoena. You should not hold it against that man, personally.

Another thing is, if you are given a subpoena, it is too serious a matter to tear it up and say that it doesn't mean anything. A subpoena is a court order, no matter what state organization it comes from—the Compensation Bureau or another Court—and a subpoena should be respected. If it is not, you are likely to be held in contempt, and I understand there is quite a severe penalty for that. To honor a subpoena is a distinct duty, I feel, that the medical profession owes generally. It is a duty which you owe as a member of your profession to help in the administration of justice. It is a duty which might be compared to the general duty which we all have as citizens, to vote, serve on juries and the like. So much for the duty. But often a doctor will say: "Well, where do I come off? I am a busy man. As you see, I have 15 patients here in my office today, and I am going to lose money." When that situation arises, he must bear in mind that the insurance companies are reasonable—at least they try to be. They try to have reasonable men in charge of such matters in their offices.

These objections apply not only to the matter of your fee, but to the matter of your time. In regard to the time, I know it is the policy of our company, and all of our investigators are so instructed, to handle it this way: When they call on a doctor and ask him to be present at a certain hour, if the doctor has an objection which is valid, he is told to advise the doctor that he is free to carry on his usual pursuits. If he has an operation at 10 a. m. he can go ahead and perform the operation. If he has patients to treat later, he can go ahead with his pursuits and forget about our matter, just so that he keeps in touch with his office or the local service that I understand doctors have, to let that man know where he will be at all hours of the day. He will promise the doctor that he will not be called until within about 15 minutes of the time that he is needed to testify in court, so as to give him time to get there.

When the doctor gets there he will be put on the stand promptly. These matters, particularly in the Compensation Bureau, do not take very long. It is a simple matter. It is just like sitting around here at the desk with your Chairman, telling him what you think of the case. It might take 15 minutes, and then you are free to go on.

In regard to the financial end of the matter, we appreciate the fact that you do lose money by sitting around in a court, whether it is 15 minutes or all day. Our men are often asked: "What is my fee?" The only answer we can give is—whatever you think is right and fair. In other words, a reasonable amount. I would say that \$100 for a doctor who is practicing in a town of, we will say, only 200 inhabitants is unreasonable, whereas, that amount for a very busy man in a large city is not unreasonable and the company will willingly pay it.

There are other factors which enter into the determination of a fee. It is easy to appreciate that it is not worth spending \$100 for medical testimony on a case which may involve only \$25. I say all those things are factors in the solution of that problem and it is just a question of trying to get along and reaching some amount that is reasonable.

The next topic I had in mind was the practical need for coöperation between insurance companies and employers on one side, and the medical profession on the other. It seemed to me that was largely the main thought and gist of Dr. Sherman's paper. Five years ago, the president of our company, Mr. J. Philip Bird, at a convention held in this city, a convention of the Manufacturers' Association, made the following observations: "The ever-increasing appetite of the proponents of labor legislation will never cease. I make this prophecy with a full understanding of its importance to industry. The advent of Compensation Legislation was the death blow to the ambulance-chasing attorney. Ten years of operation however, have developed a new form of greed, and every session of our legislature finds new and unique forms of compensation, not for the injured employee, but for the suave and persuasive doctor. Nearly every effort to amend the law is to better his income. They would resent the implication that they would sacrifice professional standing or professional ethics for mere money, but let me present to you not suspicions but facts covering the past few years." Then he went on to show how the medical cost of treating injured workmen over a period of 5 years increased from \$400,000 to \$1,239,000. That is pretty strong language, I think you will agree, but at the same time I feel that the picture is not overdrawn and represents accurately the condition which arose during the years following the time when the law allowed practically unlimited medical expenses for doctors treating these cases. Shortly after this, the Manufacturers' Association of this state found it necessary to combat this growing evil in the profession generally (I don't mean it was confined to you gentlemen, particularly) and found it necessary to organize a Hospital Company. It is now operating a group of hospitals. These hospitals now do (as I understand) about \$250,000 worth of business annually. It strikes me that money properly belongs to the medical profession generally; it should share in it, but it is because of the evils which I feel in a large measure the profession created during those years, that it is not sharing in it now. But then you say, "How does that interest me?" It interests you in this way: Our hospitals, or rather the doctors in charge, have specific

definite instructions not to tamper with eyes. It is true they will remove a fleck of dust from the eye or possibly take a hair out, but they won't do any serious job. They won't remove a foreign body that is embedded—they are not permitted to. All of that work from all of our hospitals is referred to some local eye specialist. That is where you men should be interested. It strikes me that if you doctors are not willing to coöperate (and I must say in fairness that the doctors we deal with largely do coöperate fully), the Manufacturers' Association (and I speak of them as representing only 1 of 75 groups that are interested in this phase of the matter) can do nothing but install an eye specialist in each hospital, and from that point on they will do all of our industrial eye work. Our company does one-third of this business in New Jersey. It means that that much money will be taken out of the pockets of you gentlemen. You probably won't miss it a lot, but nevertheless it will be a definite reduction of income that heretofore you have been able to count on.

Dr. E. J. Marsh (Paterson): There are 2 or 3 things I would like to speak of that come up in the experience of all of us who do work of this kind. Reference has been made a number of times to insurance companies—what they do, what they are willing to do, and what they will not do; whether they try to set fees, and so forth. Discussion of that sort reminds me that some years ago, during what the newspaper men call "the silly season", somebody started a large and active controversial correspondence by writing to a paper and inquiring why women always sit on the floor to put on their stockings. The answer, as might have been expected, was that there are women and women, and some do and some don't. Not only are there women and women, but there are doctors and doctors, and insurance companies and insurance companies. There are some companies that will send you a blank about a yard and a half long, to be filled out in triplicate—something of that sort. There are other companies that will send you perhaps a return postcard and request 1 or 2 notations on it, and they are satisfied with that. And you wonder why, if some of the companies, including some of the largest and most successful, can get along with very little information, the others cannot. There are some companies that are very prompt to settle any reasonable or nearly reasonable bill that you send them in proper form, and there are some companies that will haggle over almost anything—even \$3 for a single treatment, or things like that. So, when you come to speak of what an insurance company will do, I think we have to bear that fact in mind, that the companies vary as the human material of which the individual companies are formed.

Dr. Schlichter spoke of certain cases in which there are refractive errors preëxisting, presbyopia or hyperopia in advancing years, and a patient, after an injury, finds that he has certain troubles that, he is satisfied, are due to the injury, but as a matter of fact are not. We find a good many cases of that sort, not only after injuries, but otherwise, as where a mother, after a fall, or after measles, will notice the beginning of a periodic squint that she hadn't noticed before, and she is satisfied that the child's squint is the result of the fall or measles or whatever it may be. And so there are unquestionably patients, workmen, who are conscientiously and honestly satisfied that their trouble is the result of an injury which they have suffered, and it is difficult to convince them other-

wise. One thing that I have sometimes found satisfactory in such cases, at least in solving my personal problem, is refracting the patient, and enclosing the prescription in the report to the insurance company, or the employer, but telling both parties that the condition causing the complaints is in no way the result of the injury. They may, as a matter of policy, find it advisable to settle with this man on the basis of providing him with a pair of glasses, as the price of his good will. That, as a matter of policy, is up to the insurance company, and I don't know what they do about it, if anything. At any rate, it has seemed to solve my personal difficulty.

There is one question I would like to ask Dr. Sherman, for his experience is very much greater than mine, as he does much more industrial work. In minor corneal injuries, there is sometimes a question how far we are justified—in trying to be fair to everybody, ourselves, our work, the patient and the insurance company—in asking the man to return on another day for further observation? Of course, there are cases where you are satisfied in your own mind—you wipe the foreign body off, or pick it off—that there will be no further trouble; not only some cases, but the immense majority. Even in cases that are not fresh, if they are not infected you can dig a foreign body out and feel sure you are going to have no further complication. But there are cases where you are going to save the patient and the insurance company a great deal by having him come back for observation. But often I am doubtful, in my mind, how far I am justified in telling the patient to come back the next day so that I may be sure that everything is right.

Like Dr. Schlichter, I use mercurochrome altogether in cases of this sort, not only because I think it is a valuable antiseptic, but because it stains the ulcer, it shows you what you have got, and it will very often reveal a minor abrasion or scratch that you wouldn't otherwise discover. For that reason I like it very much.

There is one other point, Mr. Chairman, if I have a minute, and that is on the question of delayed results of injury. Dr. Sherman has spoken of cases where an optic atrophy follows an injury, sometimes after an appreciable period, and is ascribed to a fracture of the skull, but may be of an entirely different origin, yet the workman perhaps honestly believes that he is being defrauded by not being given credit for it. The insurance companies, of course, are eager to settle up cases as quickly as possible; also, the law outlaws a claim after a certain period—3 years, I think. Of a different kind from these is a case which I presented last month to the Ophthalmic Section of the New York Academy of Medicine. I am not going to cite it here, clinically, except so far as is necessary to introduce what I want to say about the compensation aspect. A man received a foreign body, a fragment of steel, in the lens more than 2 years ago. The giant magnet drew the steel against the anterior capsule but would not draw it through, as the entrance wound had been closed. For more than 2 years the eye and the lens remained absolutely clear and unchanged, with the fragment of steel in the lens, and the man is not entitled to any compensation so far because he has absolutely normal vision—as good as he had before. The eye is not affected in any way now, but we know, Mr. Chairman, that at any time in the future, he may develop a cataract from that piece of steel, which is plainly visible, or siderosis or other complications may arise. It so happened that in the course of personal conversation, I

casually mentioned this case to Dr. McBride, not thinking of him particularly as Commissioner, but right away he recognized the significance of it. He asked me to write him a letter, calling his attention officially to that case, and he took the precaution to see that a notation was entered on the man's record in the Compensation Bureau, by which the case could be reopened at any future time if complication developed.

Dr. Sherman spoke of the possibility of our adopting the A. M. A. disability scale in place of the one of our own which was worked out and adopted some years ago. I think, with him, if we had possessed the A. M. A. Rating Scale at the time it probably would have been adopted, but it hardly seems now worth while to change a scale to which we have become accustomed in this state, both the medical men who are using it and the compensation courts, as long as it is giving satisfaction.

Dr. J. Blumberg (Elizabeth): I do not believe there is any subject of more importance to the doctor today than the subject of Dr. Sherman's paper, and certain questions that have arisen on the floor with which I am somewhat familiar. Before I go any further, I want to say regarding the case Dr. Marsh spoke of, that there is a distinct provision of the law which says that if future disability is anticipated, the claimant is entitled to a yearly examination. If that is done his case is always open.

It seems to me that although various factors have been emphasized, there is one factor which has not been, and that is the interest that the state has in the affair as exemplified by the compensation law. Although the doctor has certain functions which he performs and certain duties, although the carrier has certain duties which he is compelled to perform, the law itself has certain provisions which define and compel a certain course of action in these various cases. Although the importance of complete reports cannot be over-emphasized, if one realizes the course every compensation case takes, it is readily apparent why the companies insist on these reports. Every case comes up to what is called an informal hearing, which is not binding on either party, either the injured man or the carrier, but at which time there is an attempt made to settle the case. At this time, the reports that the doctor has made out are absolutely essential to the gentleman who is going to make the award at the informal hearing in order to base his opinion. If either party is not satisfied with the award that he makes, it then goes on to a formal hearing, which is equivalent to a legal trial.

Within the last few months, there has been inaugurated in the Department of Labor of this state an informal-formal hearing at which the presiding referee informally, although legally and bindingly, tries to make a settlement of the case on the advice of the doctors, whoever they may be, representing either the company or the carrier.

There is one provision of the law which to my mind is the bugbear of the entire situation, and that concerns aggravation of a preexisting injury. Within the last 10 years in the state of New Jersey, the cost of compensation has risen from less than \$1,000,000 to almost \$11,000,000, and in the year 1929 the ratio of loss was 73%. The insurance companies are not paying that. The state of New Jersey is paying it, and every citizen of the state helps to pay the bill. That condition is becoming such that it is vital to everyone in the state.

I don't see how in any injury, even though it may be an eye injury, the doctor can determine how much a preëxisting disability has been aggravated. The physician knows that in ordinary cases of pulmonary tuberculosis, stress and strain of any kind may light up what was previously a latent condition. The law holds in this state that although a disability existed previous to an injury, if an accident took place which aggravated that disability, so that it is disabling, it is compensable. I feel certain that if the insurance companies' figures were checked up we would find that what makes their loss is not the clear-cut cases of compensation disability but the hair-line cases of aggravation or cases of possible connection with industrial accidents.

As the previous speakers, especially Dr. Sherman and Dr. Schlichter, have pointed out, the man may have been near-sighted or far-sighted previous to a minor accident and the doctor may feel that the accident aggravated the condition if not at all, very slightly, and yet the doctor cannot honestly say that it did not aggravate it at all. If that man, in spite of his previous disability, was able to do his work, and now following this minor accident he can't do his work, the accident is compensable for the degree of disability then existing.

The second thing, when rendering a report: it is not the function of the doctor to say what he thinks the ultimate disability will be. The only function that the doctor has is to say what the disability is now. He may venture an opinion that this will get better, and if it does get better the respondent always has the opportunity of asking for a reëxamination and cutting down the award. But it is not our province to guess at, accurately as we may try to make the guess, what the end-result will be. We can only say what we see now.

Thirdly, although we may believe that the accident was not the cause of this condition, the question that is going to be asked each and every one of us if the case goes to a formal hearing is—Doctor, could it produce the condition? And in the realm of medicine there are very, very few things which could not produce other things. So that in the long run, as conditions now stand, if the man sustained any kind of an accident, it is almost impossible for the carrier to overturn the case. The carrier pays if the man sustained any kind of an accident and if almost by any stretch of imagination the disability can be hooked up. It seems to me until some definite action is taken on the proposition of aggravation of preëxisting disability, there will always be friction. Whether or not the amount of aggravation can be computed in the majority of cases I don't know, but to me it seems to be a fair proposition that an attempt be made to compute the amount of aggravation over and beyond the preëxisting disability if that can be ascertained, and compensation be paid only for the amount of aggravation and not for the disability of the aggravation plus what existed.

Dr. C. F. Adams (Trenton): The question of aggravating a previous injury reminds me of 1 or 2 cases. Sometime ago a man was sent to me who had been injured by splashing benzol in his eyes, and who hadn't worked for several months. They had refused to settle with him up until that time because they rather suspected that the spilling of a few drops of benzol in the eye would not have created this condition. I examined his eyes and found that he had a chronic trachoma in each eye. Of course the question was—Would the

benzol aggravate it? I had a small bottle of benzol sent to me from the factory, had some 2 or 3 drops put in the eye of a healthy rabbit, and the next morning it was examined and the eyes were found alike. Consequently the man did not get any compensation from that accident.

Another case: A man was struck by an automobile and his case was postponed for a year. He was struck in the forehead, there was a scar on the forehead, but there was no evidence of injury to the eye though he claimed he could not see from the eye on that side; which was quite right, he didn't see much. I could see the eye-ground well with a bright illumination. It seemed to be normal, but he had a congenital cataract that was quite characteristic of the star shapes of a certain form of cataract, around the limbus, but also had a record from his former employer that his vision when first employed was 20/20 in either eye. Well, of course, from the appearance of things that couldn't be. It went to trial after a year. The jury believed the man's story and gave him \$5000 compensation for an eye that he probably had never seen through.

Another case of a man who had lost 1 eye by steel in 1915 or '16, I think. It had been removed. The other eye was a good eye. He came to me with a foreign body on the cornea, which was removed quickly, but at that time I noticed that the pupil in this eye was bound down. There was more reaction than usual from the beginning, for the small amount of injury, and there was a general inflammation of the eye. His vision was reduced. There seemed to be no reason for it except that he had some bad teeth. He had been treated in Philadelphia by a physician and he wanted the privilege of going to see him, which he did. I didn't object to it—he was a very nice fellow. The oculist wrote me a letter and also sent one to the insurance company stating he had previously treated the man for the same condition, that he didn't seem to get well as soon as he should but he did eventually recover. Well, in several days, I did finally persuade him to have 3 teeth taken out. After they were removed the inflammation soon subsided and he recovered without further trouble. It was a very precarious, serious case, from the fact that the man had already lost 1 eye.

Dr. R. B. Seely (Trenton): The mere fact that we have gotten together to talk over a problem of industrial injuries in general makes me think that we are getting closer and closer to social medicine, state medicine. We have a duty that is other than professional, that Dr. Sherman brought out, in our relation to the insurance companies, the employer, and to the employee, that is other than his relation to his accident. It is whether he is getting a square deal or whether the insurance company is getting a square deal, that we have to contend with. It is a problem which you have to have in mind, I think, in handling any of this work to be fair, and for that reason it makes industrial work possibly harder than general work.

Concerning this question of previously existing conditions, I have a case in mind that somewhat disturbed me at the time. A man came to me with a history of having had a foreign body in his eye—some trivial injury. He had a slight piece of metal substance on the cornea, that got there that day. I removed it with a blunt spud, no difficulty at all. I put him through the routine examination of testing his vision, external eye conditions, media clear, fundus normal, slight refractive error. Several weeks later, he came to me with a complaint of rapidly failing vision. His vision was down to

about hand motions, and he had a very frank uveitis. I told him that I couldn't see any relationship to the injury. I sought for focal infections, put him on active treatment, and he reluctantly believed me. A few weeks later he walked in with a couple of radiographs and showed them to me. I said, "Well, it looks like a couple of foreign bodies in there".

He said: "Didn't you tell me I had nothing in there?"

I said: "Yes."

He had a note from another doctor stating that this man had definite foreign bodies in his eye. I didn't agree with him there. One was in the eye; the other was in the orbit. For the moment I felt terribly. Now, there was absolutely no sign of a penetrating injury to that eye that I could find. One foreign body was flicked off. Should I have a radiograph taken in every case of injury to the cornea by a foreign body? When did that get in? Did it get in at some previous time which he hadn't reported? I don't know.

Another problem we have to contend with is the plant nurse, first-aid man. They persist in digging out foreign bodies from the cornea and passing up foreign bodies that they don't see. It is a serious problem. Do insurance companies want them in their employ? I think the fact that a nurse is present in the factory reduces the premium and at the same time it keeps the employer better satisfied that the work is probably being done better. I don't think it is.

I would like to say in regard to the standardization of injuries which the committee got up a few years ago that I wouldn't know how to practice ophthalmology without it. If the report of the A. M. A. is any better (I doubt if it is) it might be well to have a committee decide and incorporate it in ours.

Chairman Emerson: I would like to say a few words. I agree with Dr. Schlichter, I think it has been 20 years since I have put any bichloride in a patient's eye; for 2 reasons, because bichloride is irritating, and, I think we have better antiseptics.

Dr. Marsh spoke of a man with steel in the lens. I once saw a man with a piece of steel from the head of a nail embedded in his lens, which remained clear, with perfect vision for 4 years. At the end of that time, in a very short period of about 60 days, the lens became completely opaque. I extracted the lens, and the man is now a motorcycle cop. I don't know how he got his job, but he has had it for many years, and he "gets away" with it.

I would like to ask Mr. Meredith a question. I had a case recently in which I thought I was beaten out of my fee but the amount was so small I didn't bother to take it to the Compensation Bureau. A man was injured, and when the bill was sent to his employer it was turned over to the contractor who was doing the work. It was a building operation, and as the saying is, the contractor "passed the buck". He said he had hired another fellow on contract to do the work. So he disclaimed any responsibility. The original builder employed a lawyer who happened to be a personal friend of mine, a lawyer in Orange. I called him up and said, "the law states distinctly that any subcontracting does not relieve the employer of responsibility", and this lawyer told me that I didn't know what I was talking about, and he knew more about the law than I did and that wasn't the law. I said, "I may not know the law very well but I have a copy of it in hand and I can read. This Article 2, under such-and-such a

section, says: 'No subcontracting under any circumstances relieves the original employer of responsibility.'" The amount was so small, only \$15, that I didn't take the trouble to carry it to the Compensation Bureau, but I think that my Orange lawyer and employer were both wrong. I believe I was entitled to my fee for taking care of that man.

One point that should be brought out is the idea of cooperation between the insurance company and the doctor. When the doctor feels that he, to put it in the common parlance of the day, gets stung 2 or 3 times, he gets sore at the insurance company; vice versa, when the insurance companies get an excessive bill and the doctor tries to mulct them for charges that are too great, it isn't surprising that their attitude of mind is that the doctor is trying to get too much money, and for them to refuse all bills of all kinds. I can cite 2 recent instances which will illustrate that exactly. In 1 case a man got a lime burn, went to the Orange Memorial Hospital, and the burn was so severe he was sent directly to my office. It was outside of clinic hours, and he had no business to be in a clinic anyhow, a compensation case. The man had a very severe lime burn and he came to see me 5 times. I sent this employer (as I always do) a bill for \$25. In 3 or 4 weeks I received a check from the insurance company for \$15, saying \$3 a visit was all they allowed for compensation work. I didn't make any reply at all. I simply pinned a printed slip stating my fees, of which my minimum fee is \$5, to that slip and sent it back to them. I then received a letter from the insurance company saying that if I didn't care to accept what they would give me, it would be turned over to the Labor Bureau for a hearing. About 3 or 4 weeks later I was given a subpoena from the Labor Bureau to go down and bring all my books and so forth and appear in this case. I wrote the Bureau of Compensation a good, hot letter. I told them I thought it was an outrage that an insurance company should attempt to beat me down on my just bill and get me to accept \$15, and rather than put myself to the inconvenience and loss of going before the Compensation Bureau, if they refused to pay that bill, I would sue the workman himself and get a judgment against him. I didn't think I could collect it from him, but no employer would care to have his employee sued and have a judgment against him because he refused to pay the bill, and in about 2 weeks I received my check for \$25, and I didn't go to the Bureau. This was a case in which the insurance company was absolutely wrong.

Another case occurred just shortly after that: a man working for the Standard Oil Company; some gasoline flew in his eyes. He had a mild conjunctivitis for a day or so and about 3 weeks later appeared with a story that he got gasoline in his eye and couldn't see, and he was a case of either malingering or psychic eye trouble. I went over that man very carefully and I saw him 3 times. I went over his refraction. He was a young man, and after I had examined him carefully and listed the fact that he had 20/15 vision in each eye I assured that man he didn't have any trouble at all, that this was all psychic and a temporary discomfort, that he was all right and had no cause for a complaint. I sent a bill for \$15 to the Standard Oil Company and received a letter from them in a few days stating that since they did not authorize this bill, nor send this man to me, they were not responsible. I sat down and wrote a very conciliatory letter then in which I said that since this man came to me as a result of his injury, and came

to me with the fixed idea that he was entitled to marked compensation, and had I fostered that idea they would no doubt have been compelled to pay much more than that, but on the contrary I treated him and succeeded in assuring him he did not have any injury, and that medical service was brought about by his injury, I felt they were morally obligated to pay that bill. Within 2 or 3 days I received a check from the Standard Oil Company for that service.

I will ask Mr. Meredith to come forward and answer any questions or present anything further that he has to say.

Mr. Meredith: I will answer the questions you have raised, Mr. Chairman. It is my understanding on that problem you presented about the subcontractor, as I say it is just my opinion, it may not mean a thing, but as I understand that particular section of the law, the subcontractor is primarily responsible for your bill, providing he sent the man to you. He should pay your bill. If he is not financially responsible, then the General Contractor is responsible.

Chairman Emerson: As a matter of fact very few of these cases are sent to you by anybody. Very often the man is hurt and is brought right from the job on the run.

Mr. Meredith: Well, if somebody in authority brings him in—

Chairman Emerson: I don't think 1 case in 5, possibly 1 in 10, is brought to you or sent to you by anybody who has any authority.

Mr. Meredith: A foreman or subforeman on the job may send him in. If the foreman says, "Take him to any doctor quick", that is sufficient protection for the doctor, as I understand it. It doesn't have to be a formal written order. Anything from which you can imply authorization is sufficient to protect you so that your bill will be paid by the employer.

Chairman Emerson: More than half those men come on their own responsibility. They are not sent by anybody.

Mr. Meredith: Here is the situation that causes the most trouble: the fact that an employee is directly told to go to, say, Dr. Brown. He starts off in the direction of Dr. Brown's office and thinks it over—"Well, Dr. Smith is my doctor, I like him, I think I will go there." In that situation, Dr. Smith takes care of him and treats him and he can't get paid by the employer. There is a definite obligation that the patient has to pay him. He must pay him as a matter of contract. That is ordinary law, aside from the compensation law. But I am afraid the impression is more or less general here that there has to be some written, binding, definite contract from an employer to a doctor before he is authorized to treat that case and send the employer the bill. That is not strictly so. I say if a man is hurt and even a fellow-worker says, "Here, I will rush you over to the doctor", it is enough. Those conditions are provided for in the law. I wish I had a copy of it here, I could read it to you and point out to you just where it is provided. But, as I say, written authorization is not necessary, and the only time that problems arise where a company, an employer or an insurance company is justified in saying, "I won't pay your bill because your services were not authorized by

us (the carrier, or the employer)", is where the man was told to go somewhere, and he disregarded that order and went elsewhere.

About the other question you have raised, the \$5 charge, that is a bugbear I guess with all insurance companies. To understand the situation, you must bear in mind that you are asking somebody, a third party who doesn't know you, as far as that case is concerned, to pay something that someone else ordered. The man came to you directly on the employer's order, and the insurance company is responsible to pay your bill. They are sort of on the outside there. They don't know what is going on. It is the same situation as though I were to go down the boardwalk here, outfit myself in fine style and say: "Send the bill to Dr. Sherman, he will pay it." Well, when he gets it, he is going to object. But on the other hand, if the company knows that everything is regular, that the service has been authorized, that the bill is within reason, not according to a figure which they fix—and that impression is general that insurance companies try to fix fees, but there is a schedule which is not on paper as far as I know, it is all theory, it is in somebody's mind, and I know these medical bill committees act on it; they have a definite schedule in mind, what should be charged by doctors generally in the average case. It is not an inflexible thing. If a case is unusual in any respect, they don't hold to the schedule. What I mean is this: the Bureau, as I understand it, feels that \$2 is a fair charge, for an office visit, \$3 at the home. As far as the work of specialists is concerned, and that is what you men are interested in, they feel that \$3 is a fair office charge and \$5 for a home visit. I say the insurance companies had nothing to do with establishing that theoretic standard of fees. But that is what they use as a working basis. If your case is unusual in any respect, and to illustrate that, I will have to go outside of your work—we will say that a man has burned his entire arm, both arms, a very extensive burn, where a doctor has to use possibly a couple of dollars worth of bandages and ointment for dressing—it is unreasonable to ask that doctor to accept \$2 for dressing that injury. Two dollars for the dressing, \$2 for the normal fee, and add something to that because of the extra time involved, say \$6, is a fair allowance for an office charge in such case. But as I say, I know a number of doctors in their own practice have \$5 as their own fee which they charge probably in all cases in their office. I say "probably" for this reason, because all of you men are called upon to do a lot of free work, and that may have been a basis on which the Bureau fixed this theoretic \$3 standard for the ordinary treatment, dropping some medication in a man's eye and saying, "Come back 2 days hence". It is an average between \$5, the price you charge your private patient that can afford to pay it, and the "nothing" which you have to work for in some cases; also against the fact that in your private practice, a lot of bills are only paid after long delay.

I say it is a hard problem. As far as I personally am concerned, I try to work it out in a reasonable way in our office. I might say, too, that we have no objection whatever to a \$5 charge for the first treatment, \$10 if it is serious enough, but after that, say if there is 1 after treatment and the charge is \$5, I am quite certain they wouldn't quibble with you. In fact, I know you would get your check, if your first-aid was \$10, you would get a check for \$15, first-aid \$10, and a following treatment of \$5. But they do object, doctor, and because of this theory that the Com-

pensation Bureau has worked out, to a \$5 day in and day out charge, for a case that won't clear up, a stubborn case. They do feel that it is unfair to ask the company to pay \$5 day in and day out. They feel that there ought to be that average fee of \$3. As far as our company is concerned, if a bill would come in for possibly 2 treatments, I don't think over that, maybe 3, at \$5 each, you would get your check and no questions would be asked, but if it goes beyond that, 4 or 5, or on up to 60, there might be objection.

Most of the speakers this morning referred to these lengthy cumbersome reports that have to be filled out as time wasted and so forth. I think you realize the importance of those reports. As far as our methods are concerned, we send you 2 sheets which are in the form of questions and answers which can be filled out, I should say, in 30 seconds. One line says: "When can your patient work?" You insert the date. "Has he any disability?" If he hasn't you are through with the report. If you answer it, "Yes", there is another question, "How much is the disability?" All you need to do is say, "One-third loss of the eye, or 10%", or whatever it is.

I feel we ought to be very grateful to you for organizing that standard schedule. I think the year before that was adopted by your committee here, I wrote to 6 men specializing in eye work in the state. I said: "Will you please tell me what 20/30 means in percentages?" I received that many different answers. One doctor I guess assumed that I couldn't transpose a simple fraction into percentage, and said, "66 2/3". Another said, "5%", another, "15". That schedule which you have drawn up and which is now being used by the doctors is extremely helpful to the companies.

About these reports, as I say, if it becomes necessary for a company to get a lot of details connected with a case, an accurate detailed history and report on progress, and the final result, they expect to pay for that sort of thing. They don't want you to do that work for nothing. They realize it is a big job, takes your time, and it is worth that much money to the company to have that information, and you can always feel free, I say, to bill any company, and I think the bill will be paid without question, if they ask for a special report and you supply it.

About the case you spoke of with the Standard Oil Company, your \$15 charge for a report showing the exact nature of that man's trouble, I would say if that problem arose in our office, you would have gotten a check the next morning. I don't think we would have questioned that in any respect. We would be glad to have your report.

Chairman Emerson: They didn't when I explained it, they came back very promptly.

Mr. Meredith: I was afraid the impression might have gotten about here that insurance companies might as a regular thing object to that. I don't say that no one would object to it. I say in 95% of the cases that bill would be paid. That information is worth \$15 to them, is worth more than that as a matter of fact if you want to take it from that angle.

Dr. Sherman: Needless to say, I am very much gratified at the discussion which you have been kind enough to give this paper, and I am very grateful particularly to Mr. Meredith for coming down here from Trenton and giving us some of his views on the subject.

I think we have enough material here to pretty well fill a copy of the Journal, and I hesitate very much adding to it, and particularly taking any more of your time, but there are a number of questions that have been brought up to which I would like to make some response. There was a little misunderstanding about my remark, I think, in applying bichloride ointment to the eye after superficial injuries. I do not use that with the idea that it is an antiseptic. It is merely a protective. White's ointment has been used in the eye for years, and if it is made up properly it doesn't cause any irritation. It protects the wound for the few hours required for it to heal, and ordinary, trivial, superficial injuries to the cornea, such as remain after the removal of a foreign body, almost never have any infection if they are thus protected.

With regard to Dr. Marsh's question concerning return calls, that is a matter which must be decided by the physician attending the case, but it often does require good judgment. Those who are a little over-timid will often have unnecessary calls made. But there is no reason why we should assume responsibility and take a chance on something going wrong for the sake of saving an insurer or an employer the expense of a call, and I don't think they want us to. My practice is to have the suspicious cases, or cases about which I am doubtful, come back for observation and another call or several calls if necessary.

The question of aggravation of a preëxisting condition has been brought up. Let me call attention to the fact that aggravation of a preëxisting condition is not the same as aggravation of an injury by preëxisting condition. An example of the former is lighting up an old uveitis by a slight injury; an example of the latter is aggravation of a wound with other complications in the eye as a result of focal infection; entirely different conditions, but both coming under the provisions of the Compensation Act.

Chairman Emerson: Before we close I would like to ask Dr. Sherman a question—He has suggested the possibility of considering substitution of the A. M. A. rating scale plan. The men who have mentioned that seem to be perfectly satisfied with the one that we have. Since I believe you have had as much to do with that as anyone, I would like to appoint a committee of Dr. Sherman and Dr. Schlichter to look into the advisability of changing the rating plan in this state to conform with or embody that of the A. M. A.. Will you accept such appointment, Dr. Sherman?

Dr. Sherman: Yes, I will be glad to.

Chairman Emerson: Will you, Dr. Schlichter?

Dr. Schlichter: Yes.

Chairman Emerson: All right, if there are no objections, I will appoint that committee to report --I think probably there is no urgency about this, and I think they would like to get the opinion of a number of other men, so I think next year is soon enough for a report on that.

Dr. Sherman: I didn't bring the matter up with the idea of urging a change, in fact I am personally very doubtful as to whether we should make a change. I feel much as Dr. Marsh does about it, that our present scheme has covered the situation pretty well, and it would bring about possibly

more or less misunderstanding and would take quite a little while to get adjusted to a new scheme. However, I believe the A. M. A. plan is more scientific and more desirable for some reasons than the one we adopted years ago, although there is not a great difference in the results.

BACILLUS ABORTUS INFECTION ("UNDULANT FEVER")

C. A. PONS, M.D., F.A.C.P.,

W. GOSLING, M.D., and

H. BARKER, M.D.

From the Monmouth Memorial Hospital, Long Branch, and The Ann May Memorial Hospital, Spring Lake, N. J.

Since abortive disease in cattle is widespread in this country, and must have existed for a long time, its increasing incidence in humans is traceable to the comprehensive and far-reaching researches carried out within the last 6 years. In 1928, Alice Evans pointed out that the organism causing abortive disease in cattle is indistinguishable morphologically, biochemically, and culturally from the organism of Malta fever, the *Brucella melitensis*. It was Evans who suggested that *Brucella abortus* might be pathogenic to man. In 1924, Keefer reported the first American case of abortus infection. In 1926, Carpenter reported 2 cases in which he found the organisms in blood cultures. He reproduced the disease in heifers and suggested milk as the probable source of infection in humans. Since then the disease has been recognized in every state. In 1927, Huddelson recorded 306 cases, and in 1928 there were added 635 new cases. Giordano, in a recent serologic survey, obtained among 1000 cases of acute and chronic illness 59 (5.9%) positive agglutinations for *Brucella abortus*, and 4 (4%) among 100 apparently healthy young adults.

Considerable confusion exists as to nomenclature. The disease is variously called Malta fever, undulant fever, and *Bacillus abortus* infection. Since the majority of cases observed in the United States do not show an undulating type of temperature and most of the cases studied here are not due to the *Brucella melitensis*, the last of the 3 names seem, more appropriate.

The *Brucella abortus* is a short Gram-negative bacillus first described by Bangs in 1897. It is a slow-growing organism best grown in Huddelson's liver broth in an atmosphere of 10% carbon dioxide. According to the source of infection various strains have been isolated. Thus we have the caprine, bovine, and porcine types of infection. Humans, as well as cattle, are subject to the porcine strain. Since goat raising in this community is not extensive, the caprine infection does not need further consideration.

This disease presents a serious economic problem affecting not only man, who is apt to be afflicted with an incapacitating and rather long illness, but also the dairy, cattle, and pig raising industries. To what extent other domestic animals are afflicted is an unsolved phase in the epidemiologic study. There is also the probability of human carriers. The alimentary tract is not the only portal of entry. The tonsils, wounds and even the unbroken skin are other possible avenues. Milk, the most common source of infection, can be rendered safe by pasteurization. It must be considered that the concentration of *Bacillus abortus* in milk is a factor, as with other pathogenic organisms. This dilution factor may possibly explain the variable epidemiologic incidence as traceable to 1 dairy or to 1 person. Then, individual resistance must be considered also. Veterinarians, butchers and dairymen are frequent victims. The increased incidence among farmers is explained not alone by their close contact with cattle but by their exclusive use of raw milk. While children are the great consumers of milk, the disease among them is not as common as might be expected. Hardy reports 712 unselected cases among which the morbidity for children up to the age of 4 is only 0.6%; and 2.3% between the ages of from 5 to 9. The assumption then is that children are relatively immune to this infection, and an analogy has been established with the known immunity of calves. We are not in accord with this conclusion and we feel that a more careful investigation of the fevers during childhood would show a much higher percentage than Hardy reports. Allow us to quote from a per-

sonal communication from Dr. C. M. Carpenter: "I do believe that there are more cases of undulant fever in children than are being diagnosed. They may not be as susceptible to *Brucella abortus* infection as are adults, but we are continually finding more cases of the disease in children. As you no doubt know, children have many febrile conditions, the causes of which are never diagnosed". Although our group of only 7 cases is too small for any statistical inferences, 2 (25%), concern children.

CLINICAL PATHOLOGY

Relatively little is known of the pathology in man. The process may be a bacteriemia or it may manifest itself as a localized lesion, or both. The nature of the inflammatory process may be acute, subacute or chronic. Most any organ or organs may be involved. In man the organism can be found in the blood, in the synovial fluid of affected joints, in urine, and positive cultures have even been obtained from the tonsils. Amoss reports finding the organisms in feces, by making a suspension of a portion of the stool with stock polyvalent serum, centrifuging, and plating in eosin methylene-blue medium. In all of 20 cultures so treated the organisms were found, while repeated failures were obtained by the usual typhoid detection methods.

Specific agglutinins are found in the blood. Some workers do not believe that a positive agglutination test denotes infection. Dickson found that a positive agglutination test in guinea-pigs was invariably associated with the presence of active organisms in the spleen. Repeated blood cultures may not reveal any growth and yet the agglutination test may be positive. Less often the blood culture is positive and the agglutination test negative. At times both are negative. In suspicious cases the test should be repeated, as the test often is negative early in the disease and later becomes positive. The technic we employ is the same as for the macroscopic Widal. In fact, it is our routine to include a *Bacillus abortus* agglutination test when a Widal is requested. The blood count is of value, as most cases are accompanied by a leukopenia

and a relative lymphocytosis. Often a secondary anemia is also noted.

An aid in diagnosis should be the skin test proposed by Giordano; an intradermal injection of 0.05 c.c. of a heat-killed standardized suspension of *Bacillus abortus* in saline. This test may be positive in the absence of positive blood cultures and agglutination test. An area of redness, heat and induration appearing in 12-48 hours denotes a positive test. Occasionally, an area of necrosis which promptly heals develops at the site of injection.

CLINICAL COURSE

This disease presents a most varied symptomatology. It may be acute or chronic. We suspect that the acute type is often unrecognized. The average duration is 6-8 weeks. Not rarely the disease lasts much longer. Relapses are rather common. According to the predominating features, the following type classification has been proposed: (1) Septic; (2) arthritic; (3) visceral; (4) glandular; (5) neurologic.

Onset is usually gradual. The patient complains of weakness and a tired feeling, followed by headache, anorexia, chilly sensations, fever and sweats. The fever is more often of the septic than of the undulating type. The usual temperature curve shows a morning remission with nocturnal exacerbation. There are cases in which the fever is entirely absent. The pulse tends to be disproportionally slow. Sweating is described as drenching, more common during the day, and has a peculiar sweetish fetid odor. Arthralgia, rather than arthritis, is a frequent finding. The muscular pains and backache may be severe enough to require sedatives. Some cases show marked depression. In one of our cases crying spells were a predominant feature.

Most any of the abdominal organs may be thought to be the seat of pathology. Simpson reports 12 cases in which the appendix had been removed without exhibiting any pathologic changes. Cases of subacute bacterial endocarditis, of orchitis, oöphoritis and prostatitis are recorded. It is of interest to know that in a number of cases of habitual spont-

taneous abortions in women, positive agglutination tests have been obtained.

A significant feature is the alertness of the patient; a marked disproportion between the subjective and the objective findings. Physical findings are few, and sometimes are lacking. Enlargement of the spleen is one of the more constant findings. Skin eruptions and tuberculides have been described.

Septicemia, typhoid, influenza, rheumatic fever, malaria, and tuberculosis have to be excluded. With adequate laboratory facilities this should offer but little difficulty.

Treatment. It is mostly symptomatic. The intravenous use of dyes and antiseptics has been more or less unsatisfactory. Non-specific therapy is of no avail. Vaccines and an anti-serum have been used, but without convincing results.

CASE REPORTS

Case 1. R. B., aged 50, male, furniture dealer, under care of Dr. F. J. Altschul, Long Branch. Complained of malaise and weakness since October 23, 1929, and thought he had a slight evening temperature. Improved until December, when he had a recurrence of malaise and a temperature of 101°. Went to bed thinking he had a cold, and again felt better in a few days. On December 15 the symptoms recurred, and Dr. Altschul discovered a generalized lymphadenopathy with markedly enlarged spleen. A provisional diagnosis of leukemia was later excluded by blood count. While at Spring Valley, N. Y., Jan. 7, 1930, his symptoms recurred and an agglutination test at Nyack Hospital was positive for *B. abortus* in a dilution of 1:80. Although the spleen is still as large as when first discovered, the glandular enlargements are slightly less marked.

Remarks. This patient neither drinks nor handles raw milk nor does he come in contact with animals. Recent undetermined illness of infant daughter—sick 2 weeks—was thought to be enteritis.

Case 2. E. B., a white male, aged 32, carpenter, was admitted to the Ann May Hospital Nov. 26, 1929, complaining of flatulence and inability to retain food. In July 1928 he ran a nail in his foot and was given antitetanus

serum. In October 1929 he had a similar injury, received a prophylactic dose of antitetanus serum in the right arm, and 24 hours later the arm became quite swollen; later he had generalized urticaria and about 6 days after the injection chilly sensations, fever, weakness, flatulence and vomiting. He dates his illness from the second injection and believes it to be the cause of his illness. Dr. Gosling visited him on October 28 and found him with the above symptoms. Physical examination was negative and remained so during the entire course. By November 14 the stomach symptoms overshadowed the headaches. It was deemed advisable to send him to the hospital for study. Shortly afterward he complained of severe epigastric pain, which kept him awake at night. At the same time he had crying spells, which persisted for several weeks. On December 5 he began to complain of pain over the body, arms and legs, but the joints were not affected. The pain was severe enough to make him cry.

Neurologic examination and roentgenograms of the chest and the gastro-intestinal tract, including the gall-bladder, were negative. Repeated urinalyses were negative. Renal function 62%. Blood chemistry findings normal. November 26 hemoglobin 85%; R. B. C. 4,700,000; W. B. C. 8200; polys 62%; lymphocytes 37%; eosinophiles 1%.

December 22 hemoglobin 80%; R. B. C. 4,500,000; W. B. C. 9200; polys 67%; lymphocytes 33%. Smears for malaria were negative. Three blood cultures were sterile after many days of incubation. Repeated Widal's were negative for typhoid and paratyphoid. On December 11, the agglutination test with *Bacillus abortus* was negative. On December 18 a positive agglutination was obtained in dilutions as high as 1:1000.

Case 3. Reported by Dr. Sweet, Freehold, N. J. In this patient the disease was mild. An habitual user of raw milk from an imported herd known to be negative for contagious abortion as indicated by test and absence of evidences of infection. Ten days after the onset agglutinins were found in a dilution of 1:160. Dr. Sweet brings out the interesting connection between this case and

our case Mr. B., who is a dog trainer. In May 1929 a young bitch was transferred from his home to the home of this patient. The onset of the disease was June 18, thus suggesting the possibility of infection other than through milk.

Case 4. Reported by Dr. O. R. Holters, Asbury Park. Colored female, aged 46, ill for an indefinite period of time, complained of fatigue, anorexia and pain in the abdomen. Temperature of undulant type with afebrile periods of several days' duration. Except for a large palpable spleen the physical examination was negative. Moderate leukopenia with lymphocytosis and mild secondary anemia. Blood Wassermann: several tests were negative; Kahn test was weakly positive. *Bacillus abortus* agglutination positive 1:1000 (Board of Health Laboratories). One week later we obtained a positive agglutination in 1:1200.

Case 5. C. N., white female, 8 years of age had been taking pasteurized milk during the summer months. In November 1929, substituted raw milk and 1 month later the child developed a fever for about 2 days. Thereafter, she had various subsequent attacks of fever interrupted by afebrile periods of decreasing length. Accompanying the febrile condition there was swelling of the cervical glands, becoming larger with each new attack. When seen by one of us, in March 1930, there was considerable swelling of the cervical lymph-nodes and a nasopharyngitis. A blood count taken then showed no leukocytosis, a definite lymphocytosis and no mononucleosis. The agglutination test was positive in a dilution of 1:1200. The temperature curve resembled the undulating type with peaks as high as 104°. General appearance of the child was far better than the temperature would indicate. Blood cultures were not taken, nor an attempt made to isolate the organisms from the tonsils. The duration of the illness was approximately 4 months.

Case 6. C. B., patient of Dr. Altschul. White, male, aged 48, was admitted to the hospital with symptoms of cardiac decompensation. Physical examination showed tempera-

ture 102° F., signs of bilateral bronchopneumonia and chronic adhesive pericarditis. The blood count: W. B. C., 22,500; polys, 88%. Wassermann and Kahn tests negative. Repeated examinations of sputum were negative for tubercle bacilli and for fungi. The first agglutination test was done on the thirty-third day of illness, and was positive in dilution of 1:20; doubtful in 1:40; 10 days later, positive in dilution of 1:40. The last test done on the sixtieth day of illness was negative. The skin test gave us an unmistakable positive reaction; 2 controls in healthy individuals were negative.

We include this case after considerable thought. We were not able to obtain a positive history as to the use of raw milk. The pulmonary pathology while still present at discharge showed considerable improvement. The clinician in charge was never satisfied that the temperature, which was of 56 days' duration, could be explained on the basis of the chest findings alone, and he was satisfied to have it explained on the basis of a *B. abortus* infection.

We regret that no clinical history is available in 2 cases of positive *B. abortus* agglutination done routinely when Widal tests were requested, particularly because 1 of these cases was in a child. Fortunately, this child was seen by Dr. Nichols in consultation and he might be able to tell us something about the case.

SUMMARY

In a year that we have been collecting data and with coöperation of the physicians of Monmouth County, we have been able to collect 7 cases of *Bacillus abortus* infection. We are certain that there have been more cases in our locality than this report would indicate. Particularly, we think that the disease is more common in children than statistics would lead one to believe. The skin test proposed by Giordano should make a particular appeal to the pediatrician who at present is well versed in making skin tests in such conditions as tuberculosis, diphtheria, scarlet fever and the large group of allergic diseases.

SEPTIC ABORTION, UNDULANT FEVER AND RAW MILK

E. G. WHERRY, M.D.,

Newark, N. J.

A few years ago one of the most serious problems confronting the milk producer was tuberculosis. Insurmountable difficulties were thought to stand in the way of eliminating this disease but when it was shown that tuberculosis is a communicable disease and that either direct or indirect contact between the infected animal and the well animal was necessary to spread the disease, and general use of the tuberculin test was adopted as an essential requirement, the rest was merely applying the principles of asepsis ruthlessly and thoroughly, first in eliminating the disease from infected herds and secondly in preventing its return, we hope, for ever. Much time and much money were expended in this effort but with the sympathetic help of the Federal Government and state and local boards of health, together with hearty and honest co-operation of the dairymen, the dream of the Medical Milk Commission for a tuberculous free dairy was brilliantly realized in a much shorter period of time than at first it was thought possible.

And now another specter has reared its ugly head. Although we have known about contagious abortion for a long time, it is only recently that we have determined definitely that undulant fever in human beings may be caused by drinking infected milk from cows suffering from contagious abortion. It is not my purpose to go into the history of infectious abortion, that has already been done, nor am I going to describe the genesis of undulant fever. I am going to admit that in addition to infection through goats and swine and cattle there is a real danger of infection through contaminated milk. Undulant fever, or as it is sometimes called Malta fever, was first studied on the Island of Malta, a small island in the Mediterranean belonging to Great Britain. The name "undulant fever" was derived from the intermittence of the

symptoms, which is the chief characteristic of the disease. The exacerbations and remissions persist for months. The patient, at the onset of the disease or during an exacerbation, may show the picture of latent septicemia, tuberculosis, paratyphoid or typhoid, with a temperature as high as 105° or even 106°. He is often tormented with severe pains, especially of the cervical or lumbar regions, and is the picture of abject woe. Deep pressure will show an enlargement of the liver and spleen. Typhoid is usually suspected until several Widal tests have been found negative and then, when at the end of 12-15 days there is a distinct remission of symptoms, the tentative diagnosis of paratyphoid is made and a more or less satisfactory recovery is confidently predicted; only to be followed by another period of exacerbation at the end of a week or so. Malaria may then be suspected but when frequent examinations fail to show any plasmodia and huge doses of quinin show no beneficial effect, that diagnosis is abandoned and the doctor begins to share with the family the feeling of his uselessness and incompetency. Next, acute miliary tuberculosis is thought of only to be more or less reluctantly abandoned because x-ray examinations of the chest and bacteriologic examinations of the sputum are both negative. At about this time the patient apparently recovers and the doctor is forgiven and goes off on a vacation; and while bailing out a boat or catching a bass or broiling a steak he is apt suddenly to surprise himself as well as his friends by shouting at the top of his voice "undulant fever". He can hardly wait to get home to bet his wife a million dollars that he is right.

When he does burst in with the wonderful news his self gratification is more than likely reduced to the vanishing point, by her placid, matter of fact statement that if he only read the Ladies Home Journal he would have guessed it long ago. The next day a blood examination will show leukopenia, monocytosis and an increase of lymphocytes, together with a positive agglutination with an antigen of *Brucella abortus*. The diagnosis is confirmed, but the patient is not cured and must go on with his periods of exacerbations and remis-

sions for many weary months before he is well.

It is useless for us to say that fortunately few cases go on to a fatal termination, that more men than women have the disease, that children under 15 years of age seldom are afflicted, that goat herders and cattle handlers and hog raisers and veterinarians and laboratory workers are those most commonly infected. We must face the issue squarely, drinking milk from infected cows can and does cause undulant fever and as there is, at the present at least, no satisfactory cure, spread of the disease itself must be prevented. This, fortunately, can be done: first by proper pasteurization of all milk, not only for human but for animal consumption, derived not alone from herds known to harbor cases of septic abortion but from all herds that cannot offer positive proof that their milk is not contaminated. Good authorities now consider the eradication of contagious abortion from any given herd to be practical and feasible, and its continued banishment to be possible by unremitting effort. Approximately the same methods which have been used to eliminate tuberculosis may be successfully used to eliminate contagious abortion. It is necessary at the start to admit that at the present time there is no cure for the disease and eradicating it must proceed along the lines of blood testing, ridding the herd of reactors, and sanitation. Fortunately, an accurate and reliable means of detecting infected animals is found in the blood test. If the test is negative, the cow may remain in the herd; if positive, she should at once be removed from the herd and isolated until her milk has been similarly tested. If the milk test is negative and the cow shows no physical signs of the disease, it may be taken for granted that there is a possibility that she has recovered from the disease and may no more be a spreader of contagious abortion than a human being with a positive Widal but negative stools is a spreader of typhoid. However, such a cow, in my opinion, has no place in an accredited herd but may safely be used for the production of pasteurized milk provided that she is kept under constant surveillance. If, on the contrary, there is agglutination of the milk-serum, such a cow has no place in

any dairy. To make raw milk safe for consumption it is imperative that all reactors be eliminated and that the herd be kept clean by repeated tests at frequent intervals, and that all additions to the herd be from calves raised from negative animals belonging to an accredited herd; and that all such young animals whether born on the premises or purchased shall be segregated at a considerable distance from the clean herd and not be permitted to join such herd until repeated blood tests prove them to be safe. To carry out such a program may not be as difficult as it sounds. If, with the repeated testing and discarding of all suspicious animals, strict methods of sanitation are carried out, there is no reason to assume that contagious abortion can not be as successfully eradicated as has been tuberculosis, and with much less financial loss, as it is well known that reactors are poor milk producers; in which respect they differ greatly from the tuberculous cow which frequently gives much more than the average quantity of milk. Dairymen all over the country are alive to the advantages to be derived from cleaning up their herds and already tremendous improvement has taken place, not only in our own state, but in all the states from Pennsylvania, which leads the van with more than 200 accredited herds, to Missouri and Illinois in the Middle West and all the way to Wisconsin, Minnesota and Oregon. The conclusion is justifiable that the consumption of raw milk produced in dairies, conforming in fact to the strict requirements for production of Certified Milk, where all cattle are tested frequently enough, all suspicious cows are gotten rid of, and sanitary rules are rigidly enforced, is as safe as regards the transmission of undulant fever as it is to the transmission of tuberculosis.

At the present time we can not escape the conclusion that all milk produced under lower standards should be effectively pasteurized.

DISCUSSION

Dr. Chester R. Brown (Arlington): Dr. Wherry has covered this milk problem so well that there is little left for me, except to endorse what he has feeding. It has been proved that milk can be in- probably the most desirable of the milks for infant feeding. It has been proved that milk can be infected with and carry *Brucella the bacillus* to man,

producing the disease in him. Therefore, if we are to have a true certified milk, this source of danger has to be guarded against. Supervision of milk is divided into 2 independent systems, one official and the other private. The official supervision is done by the state and municipal governments and of necessity has to be somewhat general, while private supervision may be quite rigid. Government control is to foster the purity and safety of the milk. Many of the private milk companies have gone beyond the legal regulations. Milk Commissions have gone way beyond the statutory standards. The technic is largely that which has been followed since the clean, safe milk problem was first brought to our attention by the late Dr. Coit.

Scientific veterinary attention should be given the pregnant cow, and proper care should be taken of the calf. There should be veterinary care of the milk cow also. Many of the producers of baby milk are really ahead of the medical profession. They are giving these tests, which include not only tuberculin tests, but as already carried out by some of our better milk producers, agglutination tests for undulant fever, which are as reliable as the tests for tuberculosis. As a further check, all certified milks are carefully examined by the bacteriologist. Thus by this "check and double check" the scientific dairyman finds it possible to protect his product from the *B. abortus*.

There has been some question raised about the possibility of commercial pasteurization protecting against the infection. I cannot find that any extensive work has been done, but we all know that some commercial companies are not very particular. Some of you who have served on Boards of Health can bring that out better than I can.

So, it behooves us to do all that we can to make it possible to have a milk produced that is free from this infection, for there are many of us who may want to use raw milk, but whether we do or not we do not want to depend upon the possibility of the commercial company eliminating it by pasteurization, or the mother by boiling it.

Dr. Stanley Nichols (Long Branch): I am sure we all congratulate Dr. Wherry and Dr. Baker on the pictures they have drawn for us of the pathologic study of milk in relation to this disease. When Dr. Brown said the examinations should be checked and double checked, he made me feel, like "Amos and Andy", that this is a very puzzling and mysterious disease. I do not know of any disease that offers more difficulty. Everything about it seems to be in a very hazy state. My attention was first aroused by a ridiculous article in the Ladies Home Journal. I am sure you all had anxious mothers running into your offices to ask whether their children were going to die from use of raw milk. Looking into the question at that time, we found that only 7% of cases concerned children and the mortality was very low, only about 2% for all ages, and that less than 1% of those infected were young children. We probably all did the same thing; assured the mothers that this was an exaggerated article and that the writer was probably hired by someone to put raw milk out of business.

As time went on and I watched Dr. Pons' work, I became more interested. I saw one single case. It is difficult to classify these cases, as there is no large group in children that has been studied clinically and followed up. As we listened to Dr. Pons' 7 case histories there were no 2 clinically alike. Dr. Pons' explanation is that the child has some immunity against the infection, but the thing that troubles me is why do we have so low a per-

centage in children under 5 years of age? They are the greatest drinkers of raw milk.

It seems to me that we have opportunity here for a lot of research work in this problem from the child's standpoint. Are the children actually immune? A large group of them should certainly be tested by the simplest method possible and checked up by clinical symptoms to see whether any large number of them are carrying this bacillus about without clinical symptoms. The case that Dr. Pons spoke about threw some light on the subject. All the symptoms were probably explainable on the basis of a recurrent pharyngitis with a suppurative otitis media running through the winter period; and still the agglutination test was positive and it was a puzzling type of case from some other angles. But this particular patient did not have any serious symptoms of typical undulant fever. When the attacks subsided the temperature subsided also.

In children, shall we depend on the agglutination test? Shall we depend on the skin test? It has already been made clear that the bacillus is only found in the blood during very acute stages and that makes the diagnosis very difficult. I think if we combine the agglutination test and the skin test in children, and do some research work on the subject, we may be able to get down to some definite basis of making this diagnosis in children with temperature and puzzling symptoms.

The prognosis of the disease itself, of course, is good. I am mainly discussing the cases from the clinical standpoint, because the other part has been so well presented. It does not help much to show that only 2% die, when you consider that the active stage runs from 6-12 weeks and the relapsing stages 3-12 months. That is a long time, and unquestionably will exhaust the child's vitality and lower his resistance and put him in poor physical condition. That is very important, even if the mortality is low.

The main question as I see it is—what shall we recommend to the mothers and to the health authorities of this state on this subject? Because the whole disease is so hazy from the clinical standpoint I shall conclude my discussion by making a motion, because I believe we should have something specific to offer as a result of these studies.

I move that the Chairman appoint a committee, headed preferably by Dr. Wherry or Dr. Pons, on undulant fever, to report a year from now with definite recommendations as to what shall be done concerning the milk in this state. Shall we recommend that no raw milk shall be consumed unless certified, pasteurized, or boiled? Shall we hold to the slogan of certified or pasteurized milk? Pasteurization is not so perfect in this state as it should be.

(This motion was later adopted and a committee appointed.)

Dr. Robert A. Kilduffe (Atlantic City): I'm sure we thank the essayists for a very compact and yet very comprehensive survey of what is a most interesting development in modern medicine. A couple of years ago, when the avalanche of papers on undulant fever began, we decided in the laboratories of the Atlantic City Hospital, that all agglutination tests should include a suspension of *B. abortus*. Despite the close serologic relationship between *B. abortus* and *M. melitensis*, we run each serum against both suspensions. In spite of the fact that each Widal includes these 2 suspensions and that we are testing not only all Widal sera but all Wassermann sera—in fact, all sera received in the laboratory for any purpose—up to

the present time we have picked up only 1 case: a man in the early forties with a very vague and puzzling symptomatology, the outstanding feature of which was a diffuse and acute myalgia. The initial agglutination was negative; a week later 1:80, and a week later it had risen to 1:320. We never got a positive culture but because of the rising agglutinin titer we had no hesitation in making a diagnosis of undulant fever. As far as the symptomatology went, it conformed to that usually reported.

That we only found one case might lead to the inference that undulant fever was rare in this part of New Jersey. I question that, however, because the clinical picture is puzzling and unless the possibility is thought of, the diagnosis will not be made. As Confucius says: "One sees only what one knows." So, I believe, that in spite of the fact that we found only 1 case, this does not represent the true incidence of undulant fever in this part of the state. I think that cases may be—and undoubtedly are—missed because the possibility is not thought of.

Dr. F. W. Pinneo (Newark): How fortunate it is that these 2 excellent papers have been presented in the Pediatric Section, because they fundamentally concern milk, and milk being the greatest single article of the food of infants it behooves us to exalt its importance. If we cannot come to a conclusion as to immunity in cows we may admit the fact that milk sometimes contains a danger. The importance of prevention of human infection is in the purity of the dairy product and that takes us at once to Dr. Coit's conception, nearly 40 years ago, of, simply, *purity*. He did not wait until every possible infection developed, or might develop in future times, but struck at the root of the whole subject, *purity*. If the doctors are interested in preventive medicine they should stand for purity of milk. We have not come to the purity of drugs and foods to the extent that we will some day.

I am glad if Dr. Nichols' motion is in order and I hope that a committee will be appointed to make a report, particularly for use of the public, in forecasting and preventing this disease.

As to the question of pasteurization, a better alternative than condoning this fault is to go further and prevent it as not necessary.

Why should not others than pediatricians be interested in analyzing this subject? The next group that is interested is that of the dairymen. When men like Hale and Murphy and Orr are interested intensely it proves that *B. abortus* in cows is more of an economic factor than even tuberculosis ever was. Now, if medical science can protect the herds against tuberculosis, then it certainly can protect them against *B. abortus*. Finally, is it possible that obstetricians might find here a cause for human abortions?

Mr. A. S. Cook (Walker-Gordon Laboratory): I appreciate the opportunity to sit in this meeting and hear Dr. Wherry's paper on undulant fever and contagious abortion. The question of contagious abortion is of considerable importance to our company both from an economic standpoint, in eliminating losses, and also from the standpoint of the possible connection of undulant fever in man with *B. abortus* in dairy cattle. For many years the Walker-Gordon Laboratory Company has been working on control of abortion in cattle but about 3 years ago, when it was first thought that undulant fever might possibly be caused by *B.*

abortus, we started with a definite program of eliminating all animals giving a positive reaction to the agglutination test. At the present time all Walker-Gordon Certified Milk is produced from cows negative to this test.

We have found it less difficult to control abortion when we raise our own replacements to the dairy herd. However, it has been necessary to purchase some of the replacements and, although an effort has been made to buy these cows from herds free from abortion, we have found it much more difficult to get clean animals. The percentage of reactors to subsequent tests, after they have been added to the herd, is higher in purchased cows than in those that have been raised. However, it has been demonstrated that *B. abortus* can be eliminated from a dairy herd and, once clean, that the herd can be maintained free from *B. abortus* infection.

Dr. Hardenberg of our Company has charge of this control work and while I am familiar in a general way with it, I wish he were here to give you more detailed information.

From a control standpoint abortion in cattle presents a more serious problem than did tuberculosis and, I think, it is generally accepted to be more widespread in the dairy herds throughout the country than was tuberculosis. The Federal Department in Washington is considering an eradication program on a nation-wide scale and many individual states have already started the work and reported considerable progress.

The American Association of Medical Milk Commissions will meet next week in Detroit and the control of *B. abortus* and its relation to undulant fever will be among the principal subjects discussed. A year ago this organization suggested that all "Certified Milk" herds should start control work at once and I think there is no doubt but what definite action requiring all "Certified Milk" herds to be free within a comparatively short time will be made a requirement at this meeting.

Dr. L. B. McBrayer (Southern Pines, N. C.): I would like to make 2 points. There is a good deal that we do not know about this subject. The other day a man in our state bought some cows that were free from this infection according to the agglutination test. On the second test, a month later, 3 of the cows were found to be infected. Where did they get the infection, or did they have it already?

The other thing I wished to refer to is that in our state every blood specimen sent to the State Laboratory of Hygiene is run through the test for undulant fever and in that way a case is now and then picked up that had not been suspected, and this also gives us a line on the incidence of the infection in our state. It seems to me that is an easy thing to do and if every state laboratory would do it we would secure an immense amount of additional information, which is badly needed on this disease at this time.

Dr. C. A. Pons (Long Branch): I purposely avoided the discussion of milk, because I knew Dr. Wherry would take good care of that phase, as he has done.

The work that has been done in freeing us from tuberculosis in cows has been wonderful. I doubt if so much good work would have been done, if we had needed to depend on serologic tests. As you all know the tuberculin test is used in eliminating the tuberculous cow. Agglutination

tests are not simple. It means that the animal has to be bled, the blood allowed to coagulate, then centrifuged, and dilutions carried on. It seems to me that if the skin test to direct *B. abortus* infection were as applicable to cows as it is to man, the problem of controlling this infection by eliminating reactors would be simpler and might be carried on faster, and include not alone the herd supplying certified milk, which after all is a relatively small portion of the milk consumed, but all milking cows. Perhaps Dr. Wherry and Dr. Cook can tell us whether this is feasible.

As to the infection in children, I am firmly convinced that if you think in terms of *B. abortus* infection, you will find more cases in children. At present there is a great tendency to explain infection, not so much dwelling on the old ideas of immunity, side chain theories, etc., as on the basis of sensitiveness and allergy. It is then possible to explain the relative infrequency of the disease in children, as compared to adults, by assuming that ordinarily it might take rather a long period to become sensitized.

Dr. Elmer G. Wherry (Newark): I think the conclusion of the whole matter is that all cows, like Cesar's wife, must be above suspicion. We must either have efficient pasteurization of the milk or have production under real supervision, with genuine certification. I am not willing to stand up here and say that all so-called certified milk is safe to consume in a raw condition, but I do think that where milk is produced under the rigid requirements of an up-to-date milk commission that realizes fully its responsibilities, such milk can be made safe. I have no objection whatever to the use of pasteurized milk. I believe sometimes it is much better, however, to pasteurize the milk at home, or to boil it, rather than to trust to some of the municipal pasteurizing plants. I believe that these plants are gradually showing signs of great improvement and that they are becoming safer and safer, but I have had experience with some plants where the milk was not changed at all or came out more damaged than when it was put in. I believe it is better to have a clean product to start with than to try to clean the product afterward.

I spoke to the health officer of one of our cities and he said that he could not see any difference between milk that contained millions of germs, provided those germs were killed, and milk that contained very few germs. I said: "Let us talk about flies. Suppose instead of a hundred million germs to a cubic-centimeter you had a hundred flies to a quart of milk? You look at the flies and say, what of it? You can strain out the flies and boil the milk." He agreed to that, and I said—"Then you should not be a health officer."

I think it is necessary, if we are to eliminate septic abortion, to have a dairy raise all its own cows, or in buying cows for the herd to buy only from accredited herds; and before they are purchased they should be tested, and after they are tested they should be segregated at a considerable distance from the clean herd and re-tested repeatedly. If the milk serum is found to agglutinate, that cow has no place in any herd. I think we have got to be severe and ruthless, and in that way I think we can accomplish our purpose, which is to give to the physician who has a use for raw milk a product which he can consider perfectly safe to use, if he so desires, without either pasteurization or boiling.

THE SEROLOGY OF CONGENITAL SYPHILIS*

ROBERT A. KILDUFFE, A.M., M.D.,

Director Laboratories, Atlantic City Hospital.

Atlantic City, N. J.

Few conditions are of greater economic importance than congenital syphilis; more deserving of persistent study, or possessed of greater or more serious potentialities when overlooked or neglected. Few, likewise, because of the protean character of its manifestations, demand greater diagnostic acumen or a more careful evaluation of the varied resources of modern scientific medicine, so that again to survey this much discussed subject requires little, if any, apology.

There are 2 ways in which discussion of the problem might be approached. A frequent method is by presentation of statistical data, but these are sometimes difficult to analyze or interpret because they may be quite definitely influenced by varied factors not always apparent in the figures themselves. Moreover, to maintain the importance and the incidence of syphilis as it relates to the infant no longer demands statistical evidence. The second is to survey the problem in its broad and general aspect; to apply to it the crystallized and formed principles garnered from past experience; and to touch particularly only upon such details as may influence the ultimate conclusions.

An ever-widening comprehension of the mechanism of syphilitic infection, if it has not yet entirely explained the peculiarities of its clinical manifestations, at least has emphasized anew the difficulties attendant upon its consistent recognition. So many and so varied are the avenues by which this problem may be, and not infrequently must be, approached, that adequate discussion is impossible outside the covers of a monograph. I have selected, therefore, one of the most important, if not always the most wisely used or interpreted, namely, the serologic manifes-

* (Read before the Pediatric Section of the Medical Society of New Jersey at the annual meeting at Atlantic City, June 13, 1930.)

tations of congenital syphilis as evidenced by the complement fixation test and the precipitation reactions which have now assumed a recognized place in this field.

I have purposely spoken of the complement fixation rather than the Wassermann reaction; first, because the procedure devised by Wassermann has undergone so many and such vital changes that the phrase "Wassermann test" no longer has any concrete or distinctive significance, no longer stands for Wassermann's method, and no longer indicates in any way the reliability, delicacy, or value of the method actually used; and, secondly, to emphasize the responsibility now resting on the clinician to understand clearly of his own knowledge, not only the technical reliability and acceptability of the method of complement fixation upon which the reports rendered to him are based, but also—which is of major importance—the degree of training, skill, and competence possessed by the individual he has selected for the purpose.

One can no longer accept the report of a "Wassermann test" unless the method used is stated, nor can such a report be interpreted properly unless the exact status of that method is known. So vitally important are these factors as influencing the results of serologic studies in congenital syphilis that it is necessary to speak briefly of methods applicable to the purpose. While, of necessity, recourse must be had to the observations of many workers, and hence to the results obtained with varying methods of complement fixation, wherever reference is made to personal observations in this field the method of complement fixation referred to is the quantitative method described by Kolmer.

Nearly 9 years of intensive experience with this method embracing many thousands of reactions (several thousand of which accumulated in a study of the method prior to its publication), all scrutinized under strict and even hypercritical experimental conditions, have convinced me that Kolmer's method for conduct of the complement fixation test in syphilis—assuming always the technical competence of the worker by whom it is applied and undeviating adherence to the minutia laid

down by Kolmer—possesses in the highest degree the essential requirements for a procedure involving so important a matter as the diagnosis of syphilis, namely: delicacy and a high degree of relative specificity. That these conclusions are hardly open to dispute is confirmed by the widespread adoption of the technic and numerous reports comprising many hundreds of thousands of tests.

A few words likewise must be given to the precipitation reactions, of which that devised by Kahn is the prototype and one of the most acceptable, although not the sole one safely applicable to the problem. Although at first heralded, and to some extent propagandized, as a procedure of exceeding simplicity and unsurpassed delicacy, well worthy and destined to supplant the more complicated and time-consuming complement fixation test, intensive investigation and extensive, if not at times acrimonious, discussion have finally established these truths concerning the precipitation reaction in syphilis:

(1) Its simplicity is more apparent than real, not only as regards the factors entering into its production but also, which is of great practical importance, as concerns the technical minutia involved in its performance, reading, and interpretation.

(2) It does not exceed in delicacy the complement fixation test when applied by Kolmer's method.

(3) It does not surpass, although it closely approximates, the degree of relative specificity possessed by the complement fixation test when applied by Kolmer's technic.

(4) Because of factors inherent in the disease and the reaction of the patient to the disease, and influencing the production and presence in detectable amounts of syphilitic reagin, when simultaneously applied, the Kahn, as well as other precipitation tests, may be negative and the complement fixation test positive, and vice versa.

(5) Therefore, the precipitation tests find their proper use as an *adjunct* to the complement fixation test to be applied with and not in the place of it.

This is, perhaps, a somewhat lengthy in-

roduction to the subject proper but essential to its intelligent discussion.

The serology of congenital syphilis really should begin with the expectant mother, because syphilis in the infant almost invariably predicates syphilis in the mother. It is a matter of common knowledge now, however, that pregnancy of itself exercises a profound effect upon syphilis so that striking deviations from the usual course of syphilitic infection are the rule rather than the exception in pregnancy, the definite retardation and modification of the tissue reaction thus produced being reflected in the varying and anomalous serum reactions which are encountered. Without entering into the details of this phase of the subject, which has received extended discussion by many investigators, it suffices to say that while a positive reaction in the maternal serum is of undoubted significance, necessitating careful study of the case as a whole, a negative reaction is of no value as excluding syphilis; and where the possibility exists the test should be repeated both before and after delivery until either positive reactions are secured or sufficient evidence has accumulated to exclude the possibility of syphilis.

Two facts of vital importance deserve emphasis:

(1) *False positive reactions do not occur in the maternal serum in any greater proportion than is common to the method used in performing the test.*

(2) Few women with positive complement fixation reactions show clinical evidence of syphilis, as has been commented upon by Belding, Sylvester, Cook and Jeans, Kolmer and many others.

This latter fact is undoubtedly responsible for failure to detect or even to suspect congenital syphilis in a definite proportion of cases.

The serology of congenital syphilis most often begins with a study of the new-born child through the medium of complement fixation tests of the cord blood, concerning the utility of which procedure there has been wide discussion. Williams, for example, from a study of 4000 case records, believes the in-

formation secured incommensurate with the labor expended. This series is mentioned first, because of the deserved prominence of the author, and second because of the number of cases reported. It must be said, however, that the series antedates the present refinements which have made the complement fixation test a reliable procedure in competent hands, and, also, that some of its conclusions are vitiated by subsequent studies of pregnancy in its relation to syphilis, and finally, that they have been disputed in many subsequent reports. In the last analysis, as I have said elsewhere, the cord blood test has a definite place in the study of congenital syphilis because: (1) it can be applied without informing the patient of the nature of the investigation; (2) with present methods it has a definite positive value in a definite number of cases; and (3) if, as is not infrequent, it is the only easily available avenue of investigation, it should not be entirely neglected. My own experience with the cord blood test in no inconsiderable number of cases has been such as to convince me that it is of definite value, that it will pick up a definite number of otherwise undiscovered cases, and that, with Kolmer's technic, positive reactions may be relied upon as evidence of the presence of syphilis reagin.

The interpretation of the reaction has been widely discussed. Some authorities believe a positive cord reaction signifies syphilis in the mother and *not* the child, while others, as Kolmer, interpret it as evidence of syphilis in *both* mother and child, a view with which I am in entire accord.

Belding takes a somewhat intermediate stand. He believes that the positive cord reaction is most frequently due to transmission of reagin from the fetal to the maternal blood, and that to produce a positive cord reaction, the reagin content of the maternal blood must be relatively high. A weak maternal serum reaction and a strong cord blood reaction, in accordance with this theory, suggests active syphilis in the child. He indicates, in the table below, the following possible combinations which may occur in syphilitic mothers:

INTERPRETATION OF CORD REACTIONS

(After Belding)

No.	Maternal Serum	Cord Serum	Infant's Serum	Interpretation
1	—	—	—	Source of reagin: mother. Child infected.
2	—	—	0	Source of reagin: mother. Child not infected.
3	0	—	—	Source of reagin: child.
4	—	0	—	Maternal reagin content too low to produce cord reaction; child infected.
5	—	0	0	Child infected.
6	0	0	—	Same situation as 4; child infected.

Exactly when the new-born infant properly comes under the influence of the pediatrician may be a matter of debate; little argument is necessary, however, to prove the proposition that, as long as clinical suspicion of the possibility of syphilis waits upon evident stigmas of syphilis, the pediatrician will encounter many cases which should have been discovered earlier.

We are not concerned here with clinically demonstrable evidences of syphilis because these are often inconstant rather than constant and late rather than early.

Belding, for example, emphasizes the fact that 60% of untreated mothers may have children who stay apparently healthy during the first 4 years of life, while to rely upon the so-called cardinal and pathognomonic symptoms is to lean upon a reed.

Syphilis in the infant, as is the custom of syphilis in general, may present a variety of semblances. It may produce a picture closely simulating tuberculous peritonitis, an anemia resistant to iron may be its sole manifestation, or it may be revealed only by the striking response to specific therapy or through the medium of that which, after all, is the most delicate, constant, *single* symptom of syphilis—the complement fixation reaction. It must be emphasized, however, that when the possibility of syphilis exists, no matter how remotely, a single negative reaction has no clinical significance for, as I have noted elsewhere, Ross and Wright have shown, and this is also the experience of Rosen, Jeans and Cooke, White and Veeder, myself and many others, that congenitally syphilitic infants may show a negative cord or serum reaction until a month or so after birth. Indeed, Fordyce and

Rosen, to illustrate the difficulties of diagnosis, emphasize that every child of syphilitic parents should have a complement fixation test at birth; if negative, again in 4 weeks; every 4 weeks for 3 months, and every 3 months for 2 years. "If all are negative", they say, "and there are no clinical signs, the baby has *probably* escaped infection."

When one or both parents are known to be syphilitic the presumptive status of the child presents no difficulty. When such a history is unobtainable and serologic investigations of the parents are not feasible, then it is well to bear in mind that syphilis knows no social strata and that the manner in which it is contracted in infancy and childhood is of minor importance compared to recognition of the possibility. Osler's dictum: "Be slow to diagnose syphilis but quick to suspect it", is applicable to all the fields of medicine, and not least in pediatrics. Serologic investigations should be the court of last appeal.

Their intelligent interpretation, however, requires a clear-cut conception of the situation as a whole: of the mechanism and underlying rationale of the complement fixation test and of the many factors—including those relating to technic, and those inherent in the disease—which may modify the frequency, and the intensity of positive reactions.

It may be accepted from experience that when tested by Kolmer's method within 10 days after birth from 60 to 80% of children of serologically positive mothers will give positive reactions. In infants born of mothers without manifest lesions but with positive serologic reactions and tested a month or two after birth positive reactions are encountered in 70 to 80%, not a few of which are serologically negative when tested at birth.

From what has been said it is not astonishing to record that an infant born of a positive mother may react positively at birth and negatively a week or so later. By some this is regarded as indicating merely the disappearance of reagin passively transferred from the maternal serum, as in Belding's theory. I agree with Kolmer that this is a risky assumption and that such a child is best regarded as potentially syphilitic.

A word should be said of the anticomplementary reaction. In itself, such a reaction has no value one way or the other, signifying simply that the test cannot be read. There are 2 facts concerning this type of reaction which deserve emphasis:

(1) When a high incidence of such reactions is encountered it is an evidence of technical imperfection, either in the collection of the specimens, or performance of the test.

(2) When such reactions are repeatedly encountered with freshly collected serums, and when such reactions are uncommon in the method employed, accumulating evidence indicates that eventually a definite number of such serums will present a frankly positive reaction indicative of the presence of syphilitic reagin.

I trust that because this paper is concerned only with the *serologic* evidence of congenital syphilis, and because of the emphasis laid upon its value as a means for the detection of congenital syphilis, especially in its latent form, that it will not be misconstrued as relegating to the limbo of neglect, the clinical study of this most important problem. It is, unfortunately, too common a tendency in these days of laboratory development, to utilize the resources of the laboratory as a means of avoiding or neglecting the often more laborious clinical methods of investigation, rather than as a complimentary and coördinating source of information obtainable in no other way.

Inasmuch, however, as it is the latent and concealed case of congenital syphilis which presents the greatest diagnostic difficulty, and as it is in this type of case that serologic studies have their greatest usefulness, when intelligently utilized and competently performed, their paramount importance cannot be overemphasized. It is the serologic manifestation of congenital syphilis which has made manifest that the disease is as much at home in the upper heights as in the depths of the slums, and that reputation opposes no efficient barrier to the sins of the forefathers.

DISCUSSION

Dr. C. A. Pons (Long Branch): I never realized, until I heard Dr. Kilduffe's paper, how thoughtless it is to report the Wassermann as positive or negative, when the technic used was that perfected by Dr. Kolmer. Unquestionably, the Kolmer test is far superior to that originally known as the Wassermann test. Up to now, I have neglected to encourage any serologic tests for syphilis on placental blood. Dr. Kilduffe has demonstrated to my satisfaction that much can be gained by including it as a routine procedure. It is disappointing that so few laboratory procedures are undertaken in a private pediatric practice. The mother and physician dislike to have the little patient hurt. The actual pain is little, and a great deal of the crying is due to fright. With good technic, a little tact and persuasion, our patients can be given the benefit of laboratory tests, with minimum discomfort.

Dr. F. C. Johnson (New Brunswick): I would like to ask about the advisability of taking blood from babies by a method brought to my attention by an intern from Cleveland; using a dry cup which is much simpler than other procedures to get blood from babies. It seemed to me very practicable and a great help in many cases.

I want to thank Dr. Kilduffe for bringing the subject up and, I feel, as with other questions, the pediatrician is not the only one at fault in not getting Wassermann tests for our cases. The obstetricians are still very lax in this direction, in not having Wassermann tests of mothers early during pregnancy.

Dr. A. J. Casselman (Camden): Diagnoses are often based on the evidence of complement fixation of cord blood. I believe that we should get the information by laboratory tests long before that. Of course, many of our cases in hospitals do not have a Wassermann, possibly until the last month of pregnancy, but most of the cord blood Wassermann tests are taken because of the laziness of the intern or physician, who has not taken the blood of the pregnant mother by venipuncture. I believe that in most cases we can be satisfied with 1 or 2 specimens taken from the pregnant mother, even without taking them from the child; if there is no evidence of syphilis from the complement fixation test of the mother, and no clinical evidence, I am not sure that a routine test of the child's blood is absolutely necessary. But, if a routine examination is made, it should be done not in the first few weeks after birth, but preferably some months later, as Dr. Kilduffe has advised. If we attempt to make our routines too complicated they will not be carried out, but we should have a routine syphilis blood test on every pregnant woman. If there is any doubt, the test should be repeated; no diagnosis should be made on a single positive result. Of course, the child's blood then should be tested also.

I wish to add that I believe the complement fixation test ordinarily is highly reliable, but that doubtful reactions can occur in the absence of syphilis with a very sensitive Wassermann test using cholesterolized antigens with fixation at approximately 8° C. for about 18 hours.

In order that no one may be misled by my previous statements, I will state that I, too, consider that modifications have made the Wassermann test the most valuable and reliable of all laboratory tests.

Dr. Robert A. Kilduffe (Atlantic City): One of the speakers mentioned the Blackfan apparatus

for collecting blood. We use it quite often. Of course, this matter of getting blood from infants is often quite a complicated procedure. If you are lucky, and the gods are with you, you strike the vein, but usually you are faced with the situation in the new-born of having the obstetrician, the pediatrician, 4 or 5 nurses, and several visiting doctors standing around, and of course that is the time you are not successful. You can do either a jugular or fontanelle puncture but then the mother is apt to notice the dressing and that sometimes causes argument.

The Blackfan apparatus is very satisfactory; in fact, we use it to take blood cultures. When using this apparatus for serologic specimens one thing should be remembered: it is best to examine the specimen within 24 hours and to keep it on ice in the meantime. This is to avoid anticomplementary reactions due to the presence of skin bacteria; more of a theoretic than a practical difficulty for we seldom have contaminations when we use it for blood cultures.

Now, as to Dr. Casselman's remarks: He and I do not use the same technic and do not always see eye-to-eye in serologic matters, although our disagreements are always friendly. I understood him to say that he did not approve of the cord Wassermann because it complicates matters—and then he suggests simplifying them by taking several tests of the mother before delivery and of the infant afterward! I do not want to be misunderstood as taking the position that the cord Wassermann is the method of choice. That is not my position at all. My position is this: that the cord Wassermann has a definite and distinct place for 2 reasons: in the first place, you can make the test without informing the parents as to its nature; in the second place, while I agree thoroughly that the proper procedure is not to wait until the child has a secondary eruption, but to make the examination during pregnancy, nevertheless this is not always done or feasible.

In the Atlantic City Hospital all dispensary cases are Wassermann tested when they register in the dispensary and a cord Wassermann done after delivery. We also try to get the father but that is very difficult.

A routine Wassermann is not done on private cases because they are often assumed to be such nice people that they do not have syphilis. I am not sold on that supposition because of several surveys which have been made; one by myself some years ago in Pittsburgh. I took 484 patients in whom there was nothing in the history, the clinical examination, or the condition which brought them to the hospital which even remotely suggested syphilis. The history is not always of much value because very often it means simply that the patient said "no" to the question asked. Syphilis, however, is no respecter of individuals and can never be eliminated because obvious clinical evidence is lacking. In my survey I got the same results as Solomon who also reported a similar study—approximately 6 to 8%, I think.

In the private patient the pediatrician does not always have a Wassermann made because the parents and the aunts and uncles would all faint at the bare possibility of such a thing. That is the type, however, in which the infection is often picked up with the cord Wassermann. I wanted to emphasize that the cord Wassermann should not be neglected because in days past it was regarded as a most unreliable procedure. Any time you get a very high percentage of anticomplementary reactions, the source is not always in the specimen but in the technic by which it is tested. If you are using a reliable method you will not

get such a high percentage of such reactions. We use the Kolmer quantitative technic. You will get an occasional anticomplementary reaction even with this method, usually due to the fact that lysol or some other such substance has gotten into the tube when the specimen was collected.

As to the incidence of serologically positive children from syphilitic mothers, Dr. Casselman thought my percentage of 60-70% was a little high. I am quoting not only my own experience but also that of others with far greater experience and ability than I have. That is the consensus. Dr. Casselman has a lower percentage. First of all, he knew that the mothers were syphilitic and therefore I have no hesitation in assuming that he treated them during pregnancy; and if he treated them his incidence of infected children will naturally be lower than that of the man who goes on the basis that because the mother comes of a lovely family there is no syphilis possible. I am quoting figures which represent the bulk of the population and those who come to the dispensary, including a certain number of private patients who, nevertheless, have picked up a spirochete.

I agree with the gentleman who spoke of the obstetrician's responsibility, for it belongs there in the first place. He does not always take care of it, and the residue comes to us. That is why I felt that perhaps you would bear with me in discussing a subject which has been discussed so often before. After all, we do not know everything about it yet, have only a slight comprehension of its real incidence, and, as we all know, it is one of the most important diseases to which the human race is subject.

NUTRITIONAL EDEMA ASSOCIATED WITH SEVERE ANEMIA*

JOSEPH H. MARCUS, M.D.,

Pediatricist to the Atlantic City Hospital,
Atlantic City, N. J.

Nutritional edema is at times prone to occur in infants who have received relatively little protein in the diet, and especially, either alone or with an accompanying marked increase of carbohydrate intake. Such an edema may be sufficiently massive and extensive to produce anasarca. Krogh (Anatomy and Physiology of the Capillaries) states that the "exudation and eventual reabsorption of the fluid in the intracellular spaces will depend upon the capillary blood pressure, and the colloid osmotic pressure of the blood, the permeability of the capillary wall, the efficiency of the lymph flow and the metabolic activity of the tissue cells". It cannot be surprising that the process resulting from the interaction of these elements

* (Read at the Annual Meeting of the Pediatric Section of the Medical Society of New Jersey, June 13, 1930.)

is often difficult and at times impossible to disentangle. Porter and Carter are of the opinion that edema sometimes does appear when there is an excess of the carbohydrates ingested, but only if the proteins and fats are kept low and the minerals high. It has been demonstrated that edema is easily produced if a starvation diet of salted barley water is given exclusively for a certain length of time. An accompanying anemia such as is embodied in the case herewith presented, probably caused vascular disturbances, also productive of conditions that permit serum to pass from the vessels into the extravascular tissues; thus producing a double etiologic phase in the causation of edema. In recent investigations, it is more or less generally accepted that a definite relationship exists between the colloid osmotic pressure of the plasma proteins and the capillary pressure.

Conheim recognized 2 classes of edema: (1) due to excessive permeability of the capillary wall and (2) to venous congestion. In either type, he is of the opinion that diminished absorption is never the essential cause of edema.

Since the experimental production of edema is difficult, our knowledge of conditions of the blood in cases of edema has been derived in the main from clinical sources. Brown and Rowntree, in recent studies of the volume data of the blood by the dye method, discovered 1 case, of the several cases of edema studied, in which the normal cell plasma volume ratio was not disturbed; a case in which chronic anemia was present. It was difficult to determine whether the increased blood volume represented a state of dilution or actual anemia. The accumulation of water in the blood sufficient to produce a relative anemia is, on theoretic grounds, improbable. Saltzman spoke of the possibility of extrarenal factors being the cause of the changed water excretion, as well as the cause of edema. In its localization, anemic edema resembles nephritic edema to a certain extent. In both mild and severe cases a diffuse puffiness of the face is noticeable, and edema of the lower extremities and of the lumbar region (if the patient is in bed) is more or less definite. Regarding the

frequency of edema in pernicious anemia—64% of Cabot's patients and 50% of Schau-man's had edema. They determined, in many instances, a decrease in the total protein with a lowering of the colloid osmotic pressure in the plasma, which latter element may be a contributing cause in the production of edema. They too are of the opinion that one or more additional factors must also be present, however, possibly dilatation of the heart or an increased permeability of the capillary walls.

In determining the pathogenesis of edema, positive proof of the existence of a lowered colloid osmotic pressure was obtained in only 1 case reported by Mayrs.

Interesting deductions were presented by Darrow and Buckman, who evolved data from a study of blood volume, embracing the erythrocytes, serum—protein, concentration of electrolytes, and the freezing point of plasma, and it was evident that the diminution of plasma volume observed, in infants showing dehydration and those demonstrating retention of water, is not accompanied by a simple dehydration of blood. These infants do not show, therefore, anhydremia but rather oligemia—that is electrolytes and crystalloids leave the blood in amounts approximately proportionate to the loss of water from the blood.

A practical solution as to causation is offered by Conheim, who feels that the essential factors evolve from an increased transudation from the blood, which cannot be neutralized by the lymphatics. However, it seems plausible to me that contributing factors would also involve the velocity of the blood stream and the increased permeability of the endothelial walls of the blood vessels. In a recent report, Landis and Leopold portray a case of edema due to dietary deficiency with tuberculous enteritis. They found a slight elevation of capillary pressure and marked diminution of the colloid osmotic pressure. Edema was attributed to disturbed balance between the capillary blood pressure and the osmotic pressure of the blood proteins. Blood transfusion in this case was followed by rapid subsidence of the edema, resulting in an elevation of the colloid osmotic pressure of the blood. Wolfreth presents 2 cases in adults who de-

veloped profound alimentary disturbances, with subsequent generalized edema, resembling the war edema so common in certain European countries during later stages of the World War. The first case had been diagnosed as "nephritis" and the second as "cardiac and renal disease". Weber's observation, referable to occurrence of a fatal pulmonary edema in a boy 14 years of age, should be kept in mind. There was extreme general weakness and pallor, with a history of illness for several weeks. The heart was enlarged (possibly atonic dilation) to the left, and there was a mitral systolic murmur (doubtless hemic) at the apex. During the sequence of events, blood transfusion was followed by pulmonary edema. In markedly anemic and hydremic conditions, acute pulmonary edema is probably readily excited. In this case report there is a suggestion that slight pulmonary edema was already present prior to the blood transfusion, which procedure caused instantaneous death.

Sodium chloride possesses great power in producing edema, bicarbonate of soda is less potent, and the potassium and calcium salts have the least effect. Still reports the case of an infant who was given 10 gr. sodium citrate, and had rapid appearance of edema. Glycogen or glucose has the power of binding 2-3 times its own weight of water. Clinically, we frequently see the result of this action of carbohydrate or water retention evidenced by the weight curve. Infants fed on certain proprietary foods which consist largely of starch and sugar may be far above the average in weight but they appear pale and flabby and have lessened powers of resistance to disease. It is these infections which frequently determine a sudden discharge of water from the tissues with a marked corresponding drop in weight. Lindsay reports the case of a boy, $4\frac{1}{2}$ years of age, presenting marked swelling of the legs and puffiness of the face. He had always been a difficult feeding case. The diet was chiefly biscuits and bananas. No fluid could be detected in the thoracic or abdominal cavities. Urine was negative. Blood examination showed 3,000,000 erythrocytes, 9700 leukocytes, 35% hemoglobin, serum protein 5.1 (normal 8%), blood chlorides 0.6%. Thus,

besides the marked anemia, the blood was normal in chlorides and low in serum protein. Vaquez's case was that of a child, 3 years of age, who presented edema of the lower extremities and the abdomen. The blood count and urine examinations were essentially negative. The cholesterol content of the blood was 210 mg. % (normal 140-170); the other constituents being practically normal. The child was given a high protein diet and thyroid extract twice a day. Clinical improvement was prompt and the cholesterol fell to 160 mg. %. He believed that his case embraced a true nutritional edema, the lipotic ratio of cholesterol over fatty acids being deranged sufficiently to overthrow the albuminoid ratio of the blood serum.

Hingston reported an outbreak of edema occurring among the natives of India, and Mann described a series of cases appearing among inmates of a prison in Haiti. Both observers believed the cause was alimentary in origin, primarily due to an insufficiency of specific food elements. Different methods of approach in solving the problem of nutritional edema appeal to different investigators; and no better attitude toward the intricacies involved can be expressed than in McLean's inference: "The approach from the standpoint of the organism as a whole, with an attempt to solve the nature of the regulatory process, to discover the unknown 'influences' and manner of their control, offer a tempting field for investigators. Meanwhile the more and more detailed observation of patients with edema, the search for and the correlation of deviations from the normal, may bring to light new phenomena, each being the starting point for further investigation."

Case Report. M. C., female, 20 months old, was admitted to the Atlantic City Hospital, January 25, 1930, presenting the following salient features: generalized edema, pallor and weakness, temperature 100.4° , pulse rate 176 per minute and respirations 36. The pulse was irregular and feeble, respirations labored, and the edema was waxy in character and especially prominent in the immediate region of the eyes, in both upper and lower extremities, and in the region of the external genitalia.

The weight on admission was 23 lb. 5 oz. Orange juice was administered at 8 months of age, at which time a few selected articles of food would be accepted. This selective diet centered around mashed potatoes and chocolate pudding, with rare and partially successful attempts by the mother in feeding eggs and spinach. All other foods were rejected; and if forced, prompt vomiting would inevitably result. The mother became pregnant when the patient was 13 months of age, but continued to nurse 2 months longer. When 15 months old, the mother noticed that the child's color was less healthful and that she was losing weight, becoming languid, and less playful. When 16 months of age, the legs began to swell, and the immediate tissues around the eyes became puffy. This condition progressed until she presented the attitude noted upon admission. The father was 23 and the mother 21 years of age. There had been no miscarriages, and the patient was the first born. The birth weight was 7 lb. 12 oz., labor was 6 hours in duration and the baby's condition at birth was good. She sat up when 5 months old, walked at 13 months, talked at 12, and dentition was inaugurated at 12 months of age.

In addition to the edema and pallor noted on admission, the cervical and inguinal lymph-nodes were palpable. Maximum apex beat was in the fourth interspace about 1 cm. outside the nipple line. A soft systolic murmur was heard over the base, and a venous hum was audible over the neck. The lungs were clear; liver was palpable 2 fingers breadth below the costal margin; spleen was not palpable. The hands and feet were cold and in this case the pallor was a definite guide as to the extent of the anemia. The child was fretful and took little notice of its surroundings. Blood findings: erythrocytes 1,400,000; leukocytes 17,900; hemoglobin 20%; color index 0.5; polynuclears 78%; small lymphocytes 22%; marked anisocytosis, achromia, poikilocytosis, polychromatophilia. The Wassermann and Kahn tests were negative, as was also the vaginal smear. The condition of the patient did not warrant the withdrawal of sufficient blood to institute a further and more elaborate chemical analysis. Out of 12 urinalyses,

6 catheterized, the results were essentially negative, with the exception of 1 specimen, uncatheterized, taken 4 days after admission, which contained 10-15 leukocytes. Roentgenographic interpretation of the chest was negative, and of the long bones negative for evidences of rachitis or scurvy. The Mantoux test was negative. Obviously, my first impression was confined to a nephritic condition, but after negative urinary findings, and evaluation of the history, we concluded that the underlying pathologic cause was one of nutrition, with a subsequent nutritional edema associated with severe anemia. Coincident with stimulation, the following diet was prescribed:

8 a. m. Zwieback 1, milk 1 small cup, farina 2 tbsp., sugar, 1 heaping tsp.

10 a. m. Orange juice 5 tbs. with an equal amount of water.

12 noon. Whole-wheat bread 1 slice, milk 1 cup, scraped meat 3 tbsp., vegetable puree 3 tbsp., baked potato or polished rice 1 tbsp.

2 p. m. Apple sauce 2 tbsp., or prune pulp, milk 1 small cup.

6 p. m. Bread 1 slice with butter, $\frac{1}{2}$ cup milk, liver (scraped or mashed) 2 tbsp., egg $\frac{1}{2}$.

8 p. m. Wheatena or cream of wheat 2 tbsp., milk $\frac{1}{2}$ cup, sugar 1 tsp.

This diet approximates 1100 calories per day, with the food constituents proportioned as follows: protein 40, fat 40, carbohydrate 127. The meats varied with liver, kidney, sweet-bread, steak, hamburger and beef.

During the first 2 days, some stubbornness was encountered in the administration of food at such frequent intervals; later, the feedings were given at longer intervals. Supplementary treatment consisted of ultraviolet ray exposures, and the hypodermic administration of iron arsenite. The following table represents the comparative response of the blood to treatment.

Date	Erythrocytes	Hemoglobin	Color Index.
Jan. 25	1,400,000	16% — 2.21mg%	0.5
Jan. 30	1,990,000	20% — 2.76mg%	0.5 plus
Feb. 8	2,360,000	32% — 4.41mg%	0.7 plus
Feb. 15	3,090,000	42% — 5.79mg%	0.7 plus
Mar. 24	4,050,000	70% — 9.66mg%	0.8 plus
May 9	4,210,000	70% — 9.66mg%	0.8 plus

On March 4, 38 days following admission, the edema had completely disappeared, cardiac murmurs were no longer audible, skin color was vastly improved, and her symptomatic expression clearly denoted a state of euphoria.

SUMMARY

(1) Presentation of a case of nutritional edema in an infant, 20 months of age, nursed at the mother's breast up to the age of 15 months with little or no supplemental foods, during a period of pregnancy of the mother.

(2) Severe anemia accompanying the nutritional edema; both the edema and the anemia markedly and rapidly responsive to a balanced diet, ultraviolet ray therapy, and the hypodermic administration of a hematinic.

DISCUSSION

Dr. Charles Rosenberg (Newark): The subject has been so thoroughly and completely presented that my comment can be limited only to stressing certain aspects of this interesting disorder.

First, the condition is less frequently seen than in the past. This no doubt is the result of scientific study of the nutritional needs of the growing infant, particularly as to its protein requirement.

Second, that the normal level of serum protein during the first year is about 6%, and during the second year approaches the level of that present in adult life, about 8%. That when the serum protein drops below 4% nutritional edema is likely to occur, since it is known that serum proteins exert a great influence on the osmotic tension of the blood, and any decrease in its concentration will result in a lessened power to hold water within the vessels and thereby favor a retention of water in the tissues.

Third, so far as treatment is concerned, the most important consideration is the administration of foods rich in assimilable protein, either protein milk or lactic acid milk, and possibly the use of blood transfusion with the two-fold purpose of raising the level of protein in the serum and to overcome the anemia.

A STUDY OF VENEREAL DISEASE PREVALENCE IN EAST ORANGE, AS OF DECEMBER 10, 1929

F. J. OSBORNE, Health Officer,
East Orange, N. J.

For several years past, the question has been raised by the Health Officer of this city as to the adequacy of the standard of venereal disease incidence in the Appraisal Form for City Health Work of the American Public

Health Association. It has been argued that in cities of this character, made up almost entirely of a commuting and strictly residential population with practically no such problems as are presented by highly industrialized communities, it was extremely unlikely that 600 new cases per 100,000 population (or in this city of approximately 70,000, 420 new cases) would occur each year.

In New Jersey, syphilis and gonorrhea are reportable by law to the State Department of Health. This, it is felt, encourages a more complete and accurate reporting than as though they were returnable to local authorities; but even with this, a total of only 163 cases were reported in East Orange in 1928 and 137 in 1929, including those from the venereal disease clinic. Obviously, something is very wrong either with the standard referred to above or with the reporting of cases. It has always been recognized that the venereal diseases are not reported with any degree of completeness. Because of the proved value of the Wassermann blood test, many more cases of syphilis come under observation by public health laboratories and thereby get into the official reports than occur for gonorrhea, though it is known that the latter is much more prevalent than the former.

In order to arrive at some more nearly correct idea of the amount of venereal infection existing in this city, the method applied by Brunet and Edwards in Detroit; by Pfeiffer and Cummings in New York State; by Parra in 14 communities in Illinois, Virginia, Kentucky, Arkansas and West Virginia; by Brown in 22 Kansas counties; by Riley in Tennessee and Brunet in the various boroughs of New York; was attempted in this city. This method determines by information secured direct from physicians, hospitals and clinics the number of cases of gonorrhea and syphilis under treatment or observation on a given date. In East Orange the date selected was December 10, 1929, and the investigation was made by the same type of questionnaire used in the studies referred to above. The information requested was as follows: Number of cases of syphilis, divided by sex and stage of disease, under treatment by the doc-

tor on December 10; and the number of cases of gonorrhea, similarly divided, under treatment or observation on that date.

An early case of syphilis was taken to mean one in which a year or less had elapsed since infection, and an early case of gonorrhea one

in which 6 months or less had elapsed since the date of infection.

Table I shows the sources from which these cases were reported together with the number of physicians returning the questionnaire and whether or not they treat these diseases.

TABLE I
SOURCES OF REPORTS OF VENEREAL DISEASE UNDER TREATMENT OR OBSERVATION IN EAST ORANGE, ON DECEMBER 10, 1929

Source	No. to whom questionnaire was sent (corrected as to practice)	Total replies (from 9 towns)	%	No. not treating V. D. cases	%	No. with no cases on Dec. 10	%	No. reporting cases as of Dec. 10	%
Physicians	308	199	65	87	44	75	38	37	18
Public Institutions	7	6	86	1	14	2	30	3	43
V. D. Clinics	1	1	100	—	00	—	—	1	100

Of the 329 questionnaires originally sent out to physicians, the names of 21 were removed from the files as having no practice in East Orange or being specialists and not in the general practice of medicine. This left 308 distributed as follows:

TABLE II
MUNICIPALITIES AND NUMBER OF PHYSICIANS IN EACH TO WHICH QUESTIONNAIRE WAS SENT

City	No. Sent	No. Returned	Percent Returned
East Orange	109	61	55
Bloomfield	12	3	25
Glen Ridge	2	1	50
Maplewood	13	6	46
Montclair	31	14	45
Newark	96	43	44
Orange	43	23	53
South Orange	16	6	37
West Orange	7	2	28
	320	159	

The difficulty of making a study of this kind is indicated by the above table. Naturally, a health officer surrounded by other municipalities can assume no right, except that of courtesy, in undertaking such a study in towns outside his own jurisdiction. To be sure, the out-of-town physicians treating citizens of East Orange for communicable disease have a certain responsibility to that city. This is, of course, understood, but after the original questionnaires were sent out with an accompanying letter explaining their purpose no attempt was made to follow them up in the

adjoining communities, particularly when it was discovered that only one of the East Orange physicians not returning the original questionnaire had any venereal disease under treatment as of December 10.

Of the 109 questionnaires originally sent to East Orange physicians, 61 (55%) were returned before the close of the year. A second letter brought in 30 more, or a total of 90%. Of the remaining 18, 8 were among the 21 referred to above as not engaged in general practice in East Orange and of the other 10, interviewed personally or by telephone, 7 claimed not to treat venereal diseases and 2 had no cases under treatment on the date specified. In other words, 100% return was secured on these questions from East Orange physicians and it is assumed that, with 1 exception where records divided by residence of patient were not kept (and this a specialist in one of the adjoining towns who probably treats many cases from this entire region), these other physicians in general practice who had any cases to report returned them in response to the original letter.

It is interesting to note that of the 199 questionnaires returned, 44% reported that they do not treat venereal diseases, 38% that they had no cases under treatment or observation on December 10, and that only 37 (18%) reported 1 or more cases. These figures are about the same as those found in other studies.

The following table shows a somewhat dif-

TABLE III

No. Phys. Reg- istered as prac- ticing in E. O.	Population per physician	Percent treating 1 or more cases	Average No. cases per physician	Percent of cases treated in Private practice	treated in Clinics or institutions
308	230	11	7	76	24
101	701	14	10	70	30

Same facts for East Orange physicians only

ferent condition when all of the physicians to whom the original questionnaire was first sent are taken into consideration:

Inspection of this table shows that about twice as many physicians living outside the city practice in East Orange as there are resident physicians in the city, which reduces the number of persons per physician to about the same proportion. In other words, if the practice in this city was restricted to East Orange physicians, there would be about 700 persons to 1 doctor, instead of 230 as now appears to be the case. Of course, this assumption is not strictly true for, obviously, all of the physicians in the surrounding towns to which

this questionnaire was sent do not practice regularly in East Orange but may be called in only occasionally.

Of the East Orange doctors, 14% reported venereal diseases under treatment as of December 10, an average of about 10 per physician. Another striking and most interesting fact is that 76% of the total venereal disease load existing in East Orange is carried in private practice, even though the clinic at the Orange Memorial Hospital does remain eternally vigilant and does serve a most valuable need in caring for those patients unable to pay for this expensive, specific treatment, or who are so ignorant or indifferent to these

TABLE IV

CASES REPORTED AS UNDER TREATMENT OR OBSERVATION ON DECEMBER 10, 1929,
BY DISEASE, SOURCE OF REPORT, SEX, STAGE AND PRE-
VALENCE RATE PER 1000 POPULATION

SYPHILIS AND GONORRHEA

Source	MALE						FEMALE					
	Total	%	Early & Acute	%	Late & Chronic	%	Total	%	Early & Acute	%	Late & Chronic	%
Physicians	122	60.	52	41.0	70	59.0	83	40	17	20	66	80
Public Institutions	5	45.	0	0.0	5	100.0	6	55	0	0.0	6	100.0
V. D. Clinic	26	49.0	7	27.	19	73.	27	51.0	5		22	81.
TOTAL	153	57.	59	38.	94	62	116	43.	22	19.	94	81.0

Prevalence rate per 1000—from all sources.....3.8

SYPHILIS

Source	MALE						FEMALE					
	Total	%	Early	%	Late	%	Total	%	Early	%	Late	%
Physicians	62	56	12	19	50	81	48	44	6	12	42	88
Public Institutions	4	44	0	0.0	4	100	5	56	0	0	5	100
V. D. Clinic	21	46	4	19	17	81	25	54	5	20	20	80
TOTAL	87	53	16	19	71	81	78	47	11	14	67	86

Prevalence rate per 1000—from all sources.....2.3

GONORRHEA

Source	MALE						FEMALE					
	Total	%	Acute	%	Chronic	%	Total	%	Acute	%	Chronic	%
Physicians	60	63	40	67	20	33	35	37	11	31.	24	69
Public Institutions	1	50	0	0	1	100	1	50	0	0.0	1	100.0
V. D. Clinic	5	71	3	60	2	40	2	29	0	0.0	2	100.0
TOTAL	66	63	43	65	23	35	38	37	11	29.0	27	71.0

Prevalence rate per 1000—from all sources.....1.5

diseases that they would cease treatment entirely except for the compulsion of Health Department supervision through this clinic.

Table IV contains the cases reported as under treatment or observation on December 10, classified as to source of report, sex and stage of disease. It is also divided as to disease and, at the end of each subdivision, the prevalence rate per thousand of population is shown.

As in several other studies referred to above, it is found that the number of male cases exceeds the number of female in the reported cases of both syphilis and gonorrhea. For the 2 diseases combined, 57% were males against 43% females, while for gonorrhea the ratio increased to 63% against 37%. The preponderance of late or chronic cases is also in evidence here as in the other studies, 62% of the males and 81% of the females being in the later or chronic stage of the diseases, this being particularly noticeable in syphilis where 81% of the males and 86% of the females were so classed. This would seem to indicate that the syphilis cases are held under treatment by both physicians and the clinic for a sufficient time for adequate treatment to have been applied or, which is more likely, these patients applied for treatment only after the disease had passed the early stage. Certainly the evidence shows that from 81% to 88% of the syphilis cases under treatment received their infection more than a year previous to this study and that 71% of the female gonorrheal cases had their infection at least 6 months prior to December 10. The male gonorrheal cases, however, showed only 35% in the chronic stage against 65% acute. This raises the question as to whether the majority of the female gonorrheal cases are ever brought under treatment in the acute stage. It is well known that the disease is more difficult to discover in the female and certainly more difficult to treat to an eventual cure, which may account for the longer period they are kept under treatment. In view of the difference in structure and function between the male and female genital organs and the consequent difference in discomfort or pain caused by the disease, it is probable that

female gonorrhea is commonly discovered and put under treatment at a considerably later stage than that of the male.

The prevalence rates disclosed by this study are most significant when taken in connection with some of the others previously mentioned. For instance, the combined rate for the 2 diseases in Philadelphia was 9.11 per 1000 of population, in Cleveland 11.30, in Detroit 11.12 and in the studies made by Parran comprising 9 cities and 5 rural counties, the combined rate was 11.60. In view of the fact that the East Orange combined rate was but 3.8 on a study which took in those physicians known to have any practice in this city and, therefore, probably as accurate as it could be made under the circumstances, requires some explanation. This more closely parallels the rate found by Brunet in Queens County and Pfeiffer in up-state New York where, combined for the 2 diseases, the rates were 4.63 and 4.57 per 1000 respectively. The explanation given by the former is quite likely applicable to East Orange, namely, that surrounded as she is by other communities, several of which maintain free treatment facilities, it is quite probable that many East Orange patients seek treatment out of town, particularly in Newark and even in New York City where they may be employed. When it is remembered that the majority of East Orange male residents, and a considerable number of the females as well, commute each day to one or other of these large centers, the likelihood that many patients obtain treatment elsewhere is obvious. However, on the basis of the evidence disclosed by this study, it appears likely that the contention so often made that these diseases are not so prevalent in this city as in others where large foreign and industrial elements exist is very likely true. The experience here appears from these prevalence rates to conform more nearly to that of up-state New York.

It will be observed that the above discussion has all related to the *prevalence* of the venereal diseases existing in the city on a given date. This is, of course, quite different from the *incidence* of the diseases, or the number of new cases developing in the com-

munity in a given year. This latter is most difficult to ascertain, particularly with reference to syphilis and gonorrhea which notoriously remain unreported to a considerable extent by the great majority of physicians. This is particularly true of gonorrhea, as will be readily seen by inspection of Table IV and observing the acute cases which, for the 2 sexes,

total 51, and comparing this with certain facts disclosed in Table V. This table shows the number of venereal diseases reported to the State Department of Health during 1929 and the number of physicians making these reports. Those reported by the Venereal Disease Clinic are also shown.

Obviously, the 51 gonorrheal cases reported

TABLE V
VENEREAL DISEASE—1929

REPORTED TO STATE DEPARTMENT OF HEALTH FOR EAST ORANGE PATIENTS

City	No. Drs. Reporting	% of Total	Cases Syphilis	% of Total	Cases Gonorrhea	% of Total
East Orange	12	36	16	46	9	31
Newark	9	26	2	6	9	31
Orange	5	15	12	34	6	21
Others	8	23	5	14	4	17
	34	100	35	100	28	100
Venereal Disease Clinic.....			56	76	18	24

as of December 10, all occurred within the year 1929, but only a total of 28 cases of this disease was returned to the State Department of Health for this city during that period. This is a higher proportion of reporting than exists in some places but does not compare with the accuracy of syphilis reports which, for the one-day census, returned a total of but 18 early cases (that is, of less than 1 year's standing) while physicians reported to the State Department in 1929 a total of 35 cases. This discrepancy can probably be accounted for on the basis that many of the patients were already in the later stage of the disease when they came to physicians for treatment.

Several attempts have been made to relate the one-day survey figures to the probable incidence of the disease. Pfeiffer, for up-state New York, studied the one-day figures in relation to the annual number of cases treated by a group of clinics and private physicians. Among syphilis cases, the ratio was found to be 1 to 1.45; among gonorrhea cases, 1 to 3.35. In Philadelphia, the application of these factors gave a possible incidence rate of 22.17 per 1000 of poulation, while in East Orange it gave a rate of but 8.3, which may or may not represent the true conditions existing in these cities with reference to these infections.

The method which gives promise of the greatest accuracy in arriving at the true incidence of these infections in this city is to determine the average annual turnover which has existed in the venereal disease clinic for the past 6 years. These records have been accurately kept and the patients are carefully followed up. These facts for both syphilis and gonorrhea are shown in Table VI.

TABLE VI
SYPHILIS

Year	Cases under treatment on first day of year	New admis- sions dur- ing year	Ratio of new ad- missions during year to cases un- der treatment on first day of year
1924.....	42	30	.71
1925.....	17	37	2.18
1926.....	40	35	.88
1927.....	41	41	1.00
1928.....	63	72	1.14
1929.....	62	56	.90
Total	265	271	1.02

GONORRHEA

1924.....	1	12	12.00
1925.....	7	25	3.57
1926.....	1	24	24.00
1927.....	5	13	2.60
1928.....	4	26	6.50
1929.....	8	18	2.25
	26	118	4.50

This would indicate that syphilis cases are, as a rule, kept under treatment or observation

for an average length of time of 1 year but that gonorrhea, as would be expected from the course of the disease, has about $4\frac{1}{2}$ times as many new cases reported in a year as are under treatment at any one time during the year, or a turnover of about 4.5. Assuming that these ratios also hold in private practice, and applying them to the number of cases reported in the one-day survey, we find a probable case incidence of 168 for syphilis (165×1.02). For gonorrhea the likely incidence based on this calculation would be 468 cases (104×4.50). This gives a total of 636 new cases of venereal disease in the city, or an annual incidence of 8.9 per 100. This, it is observed, is within a reasonable range of that secured by using Pfeiffer's factors which gave a rate of 8.3.

Added to the questionnaire was an inquiry as to the probable increase or decrease of these diseases, in the opinion of the physician, and what, in his judgment, were the reasons therefor. Fifty-seven replies were received, 39 expressing the opinion that the venereal diseases were showing a decrease, 8 that they were increasing, and 10 that they could observe no essential change. It is interesting to note that 17 of those inclining to the belief that these diseases were decreasing gave as the reason education and increased knowledge of prophylaxis (the latter 8 do not specify whether of an educational or mechanical type). Others stated that early treatment, decreased commercial prostitution, treatment by specialists and the use of more exact and scientific methods of treatment all tended to decrease the prevalence of these infections; while those noting an increase in the diseases attributed

it all the way from the effects of the Volstead Act to the failure to report for early treatment and the influx of single, male, foreigners and lack of home training. One physician ascribed the increase to careless physicians and loose morals among public officials. Obviously, no great value can be attached to these expressions which are mere opinions rather than convictions based upon exact knowledge.

As a matter of fact, this whole study indicates the need for more study, and only by repeating investigations of this kind every few years can any exact knowledge of the incidence or even prevalence of these diseases be gained. The spirit of the physicians in answering this questionnaire was most encouraging and indicated their interest in the problem as well as their willingness to assist in learning more about it.

As the result of this study, the Health Department obtains the full credit of 16 for "Reporting" under this item in the Appraisal Form. It also obtains 12, instead of 6 as last year, out of a possible 20 for "Clinic Registration", since the number of patients has been adjusted to 40% of the total annual cases as shown by the incidence study. Due to a considerable increase of "Clinic Visits", the Department scores 21.5 out of a possible 25 for this item. With full credit under "Control Practices", 24 additional points are obtained, or a total of 88.5 of a possible 100 as against 66 in 1928. This is a most encouraging increase and opportunity is herewith taken to thank the physicians and institutions again for their participation in the study which made this attainment possible.

THE SYMPHONY

Francis L. Montgomery

Here in the forest, wind blows through the pine
With sound as of strings by virtuosi played,
And up and down the edges of the glade
The wood-wind tones of slender reeds entwine;
The crash of cymbals mingles with the sharp,
Long ruffles and staccato boom of drums
As the swift deluge of the tempest comes

And, passing, drops slow gold notes from the harp.
It is God speaking to the ears of men
In flawless harmonies, celestial,
That rise in grandeur to a climax strong,
Sweep through the forest in titanic song,
Cease when the Master lets His baton fall,
And silence folds the forest in again.

Collateral Reading

MAN AND HIS UNIVERSE

By John Langdon-Davies

(Reviewed by the Editor.)

In the book review for the November Journal we promised that a book of even greater interest would be considered this month. It happens that both authors were dealing with pretty much the same theme and that both were equally competent as scientists, particularly as biologists, to review what is known scientifically concerning the origin, life and prospects of human beings. The book now before us may be recommended to a wider circle of readers because it is written in a simpler language and has not assumed possession on the part of the reader of all the scientific knowledge at command of the writer. Langdon-Davies is a profound thinker and a facile writer, and he has woven into a thrilling narrative the whole story of man's earliest superstitions and beliefs. Rarely have we encountered a book dealing with scientific matter that held the fascination of this one. It is as interesting as a love story and as thrilling as many of the detective stories. When we confess that it held us through many hours of our summer vacation, when there were hundreds of other interesting things to be done or to be seen, we are probably expressing as strongly as possible the fascination that this story had for us. It is unquestionably the most interesting book we have discovered since making the review of Dimnet's "Art of Thinking". We heartily commend it to all of our members and to all of the members of the auxiliary.

In a note accompanying the synopsis of contents, the author says: "For any one whose life permits him leisure for such occupation, there can be no more urgent thing than to try and form an honest, reasonable, day-to-day philosophy. Perhaps the urge is strongest between the ages of 30 and 40, for then it is possible to gather a certain body of experience together, and it is not too late to profit by it. This book in no sense offers such a philosophy but it does try to present some of the spade work which is required before any one can begin to plant the seeds of a philosophy. It suggests in a fragmentary way the effect of science upon those beliefs the holding of which makes life worth living for each of us." The Editor has passed beyond the decade of life above mentioned but he believes that intelligent readers of an age younger than that indicated, and certainly intelligent readers of an age far beyond 40, can profit

by the scientific explanations here set forth and will find it neither too soon nor too late to construct or reconstruct his personal philosophy of life.

The author commences his story of the universe with the conflicting theories as to its origin and leads one through an understanding of the differing visions presented by the fundamentalists and the students of nature from the earliest recorded writings up to the latest pronouncement by Einstein. Almost in the beginning, he says: "The history of science is the history of the most intelligent search for God, the best attempt at constructing a noble religion, which civilized men have yet known. Were that history well and fully written down we should have the modern man's Bible. Just as Joshua, Judges, Kings and Chronicles, the historic books of the Old Testament, trace the evolution of the Hebrews and of the Hebrew idea of a tribal god; so the lives and works of Copernicus, Galileo and Newton are episodes in the evolution of the modern man's God and the modern man's outlook on life. Without a clear idea of what such men have done, no religious outlook today is really of much value. * * * What then, the reader may say, of the so-called conflict between science and religion? There is no such thing: there is only a conflict between 2 religious outlooks and 2 ideas of God. We shall see how true that is when we study how Copernicus, searching after God, discovered a more satisfactory idea of God than the orthodox one; and from Copernicus to the present day the whole of this conflict has been due to the irritation of orthodox religions with the new and better conceptions of the eternal truths revealed by science."

The history of scientific and philosophic thought shows a more or less periodic conflict between the current religious beliefs and those made necessary by newer knowledge, each significant advance in which means a real conflict between the fundamentalist and the scientist. This history also shows that in the course of time the fundamentalist has always come to accept as a matter of course the discoveries of the scientists. For instance, as early as 300 A. D., Lactantius, a very early fundamentalist, proved by reference to the Bible that the earth is not spherical; but practically all fundamentalists of today know better and have forsaken those old proofs.

Langdon-Davies makes use of a very interesting plan for reviewing the progress of scientific knowledge concerning man and the universe. Studying the medieval picture of the universe, he invites the reader to imagine himself as an educated, intelligent man of the year 1543, sitting in his library reading the

works just issued by Copernicus, on "Revolutions of the Heavenly Bodies", and by Vesalius, on "The Fabric of the Human Body"; and asks him to consider with what consternation he would have received these publications in view of what he had been previously taught. So, at a later period, when Darwin and Dalton brought forth ideas that upset much of the supposedly accurate preachings of Newton and teachers of his period, we are asked to imagine ourselves again shocked by the necessity for discarding old beliefs and accepting new ones. The method is both interesting and effective, for as one can readily see there would be striking differences in the accepted theories, of the years 1543, 1643 and 1900.

We would not destroy your interest in reading this book properly by presenting too many quotations, but we think a portion of the last chapter may aid in enticing you to spend some delightful hours with Langdon-Davies. So, we quote a portion of what he has to say about asking a man of the present day to consider the universe:

"In 1930 we will ask him to do something a little different: let him walk out into the winter night and let his imagination run freely to and from the stars above his head. Low down on the horizon he will see Sirius flashing: when he was a savage, Sirius was his timepiece by which he reckoned the passage of the year; when he was a medieval philosopher, Sirius the dog-star seemed to have serious effects upon those whose births it was able to influence; Galen, whose art cured or sought to cure mankind for a thousand years, recommends a sick man to make medicine by burning a live river crab on a plate of red bronze after the Dog-star has risen and when the sun is in the constellation Leo. On this night of 1930 the modern man knows that hidden in the rays of Sirius is a faint companion star made up of matter so closely packed together that it is 60,000 times denser than water, so that a cubic inch of it weighs about a ton.

Among the constellations he can make out one or two planets, wandering stars, shining, he thinks, with a steadier light; once upon a time, when he was still one of his ancestors, he was convinced that these stars, Venus, Jupiter, Saturn and the rest, were actively employed in wrecking or making his fortune. So as to predict the future he made elaborate observations and calculations, invented eccentrics and epicycles, and from these found whether or not next year was propitious for his business. Now he knows that these planets have never given him a thought; that they wander round the sun according to the laws

of gravitation; that he has nothing whatever to hope or fear from them or any other star.

If he had a telescope he could see nebulae which were themselves great stellar systems, often bigger than all the galaxy of bright points he sees about him. In such a universe there is room to think and to feel expansively!

But above everything he knows that his own body is composed of atoms and electrons of extraordinary vigor and of precisely the same nature as those crushed together in the companion star of Sirius, or nodding distantly to each other across vast interatomic distances in Betelgeuse. He will be left wondering how it has come about that whereas most atoms throughout the universe have simply joined one another to form masses at which he can look, a few here and there have coalesced to form far smaller masses, like himself, which can do the looking! He and the universe are reduced to electrons and atoms seeing and being seen.

This must for ever remain the main mystery, how some atoms have developed the quality of thinking about the rest; and the more we know of the universe, its vast extent, its minute structure, the more we realize how much there is to see, the more surprising it will be that we, atoms and electrons as we are, are here to see it. Would Betelgeuse exist, if we had not learned to know of its existence? Does Betelgeuse see us? Who that is alive to the questions that can be asked can dare to pretend that science has destroyed the splendor of the heavens, or the glory of the universe? The truth is that nobody has yet been able to imagine a God splendid enough or glorious enough, esthetically or ethically, to capture the imagination of man once it has become alive to what modern science can show it lying about its feet or hanging overhead. There is certainly as much beauty in the music of the spheres discovered to us by modern physics as in the greatest earthly music, if we can use our brains to capture it; and since, where man finds the greatest beauty, there will his reverence be, the modern man worships the human intellect which has drawn a picture of the universe infinitely more beautiful than any system of theology has disclosed. Science has increased the esthetic value of the night sky.

And as these thoughts occur to the modern man standing under the frosty stars, the sound of people enjoying themselves comes to him from somewhere near by. These people will probably never read a book of science in their lives and will never realize whence comes their greatest pieces of good fortune. But we are able to judge what the New Renaissance with its new picture of the universe has

done for them; and we can sum up its chief gift in a phrase—it has *eliminated from their lives nine-tenths of the fear which dominated the lives of their ancestors.*

Let us think the worst of these night revellers: let us assume that they are breaking the law and the commandments; it is the fashion to think and speak ill of the younger generation! Fifty years ago they would have been making illicit love just as much as they may be now; but then whatever beauty might have been in their emotions would have been destroyed by fear; fear of venereal disease, fear of pregnancy, fear of a curiously mean avenging God. Perhaps these fears kept them *good*: but it is surely better to be bad because of Freud and Margaret Sanger than good because of that trinity of fears! The new picture of the universe has certainly altered our attitude toward morals, and only a hypocrite can pretend that the Ten Commandments mean what they did.

It is not necessary to inquire too closely what these revellers are doing. It is true that a chorus comes from certain quarters that jazz, cheap cars, hip flasks, the movies, psycho-analysis, birth control and modernism are wrecking the home, marriage, love, innocence, purity and many other high-sounding things; and there can be no doubt that great changes are taking place in what people regard as *moral* for them to do. We have seen in an earlier chapter that science and conscience are linked together; all that we have been studying leads us to believe that the picture of the universe which dominates an epoch will mould the outlook on life and morals, the religion and the God of the epoch; and that explains why in the forge of the New Renaissance people are no longer ashamed of doing what shocked their grandmothers.

What if the revellers do not possess the desire for ritual purity, the horror of certain physical defilements, the respect for biologic virginity which suited the shuddering superstitions of the Middle Ages? They have shed with these muddy garments another garment, covered not only with mud but with human blood and tears, the garment of *fear*. The revellers are not afraid and the importance of that is—that perhaps lack of fear will bring lack of cruelty. Cruelty has usually been the result of fear and the picture of the universe which has lessened the one may, we hope, in time lessen the other.

Science by destroying the old sanctions of morality has destroyed the old morality as well; inevitably, however, a new morality, a new over-belief comes to take its place. The

trouble with the revellers is not that they are immoral—whether they are or not is a matter of opinion—it is that possibly they are vulgar. How is that? It is because, though science determines morality, science without art can do nothing against vulgarity. If then there is legitimate ground for complaint against the revellers, it is not because science has made them lose their fear of what frightened their parents, but because poetry has not yet built up a lovely structure of emotions and ideals in which they may live. All that has ever separated us from the cats on the garden wall has been the words of the Shelleys, Shakespeares, Donnes, Brownings, who have covered the animal core with imaginative dreams. In so doing they have had to use what science had to give them; and now science gives them more than ever by taking away fear."

THE NEW BELIEVERS

Roselle Mercier Montgomery

A contemporary has rightly said that the only deeply religious people of our largely materialistic age are the earnest men of science.—Albert Einstein.

They who have worshipped at one shrine
alone,

The shrine of truth, they who have long
assailed

The ancient altars where old faiths pre-
vailed,

Begin to sense that truth and God are one,
And grow more humble now, more reverent.

For sciencè, challenging the infinite,

Descries, beyond the furthest star, a light
That leads to worship and to wonderment.

Let doubts bedim the minds of lesser men

Who cannot find God in the books and
creeds—

These research men derive Him from His
deeds;

Let earth-bound ones, their eyes upon the
sod,

Broadcast today the cry, "There is no
God"—

The scientists discover God again!

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HENRY C. BARKHORN, M.D., Chairman, 45 Johnson Avenue, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

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THIS NUMBER OF THE JOURNAL

We have rarely issued a Journal that contained so much "meat" for our members as does this December number. Bear with us while we direct attention specifically to some of the good things herein set forth.

First, is an interesting bit of ancient medical history. You may have noticed that we have during the past year published several articles on medical history, and some of you will be pleased, we hope, to learn that we now have in hand other similar manuscripts for future use. In anticipation of our publishing a History of Medicine in New Jersey, such articles should be at least entertaining and instructive.

Next is an article contributed by an American physician who, since the World War has been practicing in Paris; an "expatriated war doctor" with the soul of an artist and, evidently, a lingering memory of his American associates.

The series of papers selected from among those read at the last Annual Meeting, in June at Atlantic City, contains one of exceptional value to all of us. Dr. Sherman spoke particularly of industrial eye injuries but he incidentally opened up consideration of the relationship between such injuries and the Workman's Compensation Act, and when President McBride, formerly Commissioner of Labor, and Mr. George E. Meredith, representing the New Jersey Manufacturers' Casualty Insurance Company, were invited to participate in the discussion, the doors were necessarily thrown wide open to a discussion

of the various phases of that law as it concerns physicians and surgeons. Schlichter, Marsh and others contributed to a thorough review of these problems, and we may all profit by careful perusal of the entire report.

COUNTY SOCIETIES' WORK

In another department of this Journal we publish a complete report of the proceedings of the recent Annual Conference of County Society Secretaries and Reporters. The secretaryship of a county medical society is no sinecure—if the secretary performs his proper duties conscientiously. At the present moment the number of serious problems demanding consideration is probably larger than at any previous period in our history; and some of those problems have a definite bearing upon the practice of each of us, and their solution will materially influence the future of each practitioner. These are some of the reasons why the Conference voted, for instance: to request each county society to hold at least 1 meeting during the year for discussion of medical economics—taking up any of its varied aspects; and to recommend that arrangements should be made for holding 1 joint meeting annually of all the county societies in each Judicial Councillor District.

The last mentioned action was taken after listening to an address by the Secretary of the Pennsylvania Medical Society, Dr. Walter F. Donaldson, and learning how our neighbors have profited from that device. Our own leader in the Conference, Dr. George H. Lathrope, representing the Morris County Society,

was ready with a plan for adapting Pennsylvania's advice to New Jersey conditions, and we hear that action has already been taken in all 5 districts for providing such meetings this winter.

The Secretary from Burlington County read a paper replete with suggestions to his associates for practical application in their home territories; and, incidentally, setting forth many thoughts which it would be well for the general membership to read. One of his topics—who shall be permitted to practice surgery?—has timely reference to a Bill that has been twice before our Legislature and may appear there again before many weeks have passed.

President Sommer and Secretary Morrison "sat in" with the conferees, and the latter opened a discussion of that topic which is rapidly becoming uppermost in all our minds—state medicine. The Executive Secretary reported upon the amazingly large number of articles dealing with state medicine that had appeared in State Society Medical Journals during the summer, and told something of his vacation observations of the working of the National Health Insurance Act in Great Britain. Those gathered at Trenton for this conference were so impressed that they adopted a resolution asking the State Society to appoint a special committee to investigate conditions elsewhere, to study the progress being made by so-called state medicine, and later to report recommendations.

POST-GRADUATE STUDY COURSES

We are informed by the special committee which so successfully conducted the State Society's program last year, and which was re-appointed by President Sommer to continue the good work, that plans are well under way for new courses to be given during the spring of 1931, and that detailed announcement will soon be forthcoming. Owing to difficulty encountered by members in attempting to attend courses given at county seats or the largest town in their own county, and because of imperfect travel facilities available to some county groups, the committee is this time pro-

posing a plan whereby the state is so divided, regardless of county lines, that 18 *lecture centers* may be established. It is hoped this plan will prove advantageous to all of our members. The centers tentatively selected are: Atlantic City, Asbury Park, Bridgeton, Camden, Cape May, Elizabeth, Jersey City, Lakewood, Hackensack, Morristown, Newark, Newton, New Brunswick, Perth Amboy, Paterson, Somerville, Trenton, Washington.

The subjects primarily selected for lecture courses comprise: Gastro-Intestinal Diseases; Gynecology; Obstetrics; Pediatrics; Cardiovascular-renal Disorders; and Newer Therapy.

Hold yourselves in readiness to "sign up" for one or more of these courses when called upon and supplied with fuller information.

GROUP HEALTH INSURANCE

We call particular attention to a communication in this issue from the Committee on Health and Accident Insurance, relating to new and increased benefits for our group policy holders. Increasing success of this form of insurance, as judged by the growing number of policy holders and, also, the liberality of the claims department of the company in adjusting claims when the committee has had occasion to intervene on behalf of a member-claimant, encouraged the committee to push for a long desired improvement in benefits to a sick member when disabled but not necessarily *house-confined*. And full success has crowned the committee's efforts, as will be seen by reading the communication.

Note the eligibility of members of any age to get this policy, whereas others outside are subject to exclusion on age, so disappointing to one who reaches that limit after paying premiums, perhaps, for many years. Yet, inclusion of those over 60 still allows a low premium to those who are younger, (and we are told that claims of the older members have been fewer and lower than of the younger). This policy cannot be canceled during the policy year; so, if one holds receipt for premium paid he is perfectly protected under all circumstances.

Medical Ethics

THE DOCTOR AND THE HIGH COST OF ILLNESS

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

Much of the censure of the physicians for the high cost of illness is undeserved. Few physicians, however, will deny that at the present time the high cost of the high privilege of being sick is probably higher than at any other period of the world's history.

One of the greatest reasons for this is *self-diagnosis*. In the August issue of the "Health Messenger" of the state of Illinois, we read: "Self diagnosis by persons suffering from ailments results in an annual expenditure in Illinois of \$15,000,000 for proprietary medicines and nostrums. Since 5000 people die annually in this state without benefit of professional care immediately preceding death, the Health Department says that there may be a definite relation between these deaths and self-diagnosis." There is "no service of a physician more life saving (and more money saving) than prompt and accurate diagnosis. Without a correct knowledge of the physical condition which makes for ill health, any treatment must be largely guess-work, and experience has shown that the guess is more apt to be wrong than right."

Now let us go back to money and figures. Multiply the \$15,000,000 spent (and our authority is good) in Illinois by 48, the number of states in the Union; we find it would imply that \$720,000,000 (almost a billion dollars) are spent every year in these (at present) poverty-stricken (?) United States for illness about which the doctor is not even consulted, let alone being permitted to send a bill!

Of course some states spend less and some more than is spent in the populous state of Illinois. So let us be fair. Suppose, therefore, that a half-billion dollars are yearly spent in the United States for what *frequently does more harm than good* in vain attempts to cure the ills that flesh is heir to; is it unreasonable for physicians to affirm that if this sum was used for correct diagnosis and proper hospital treatment, the high cost of medical care would be greatly reduced?

Now it is quite easy to give this subject an ethical slant to the doctor himself. In his struggle for "his place in the sun", it is so easy for the physician to get a little mixed, if not confused, in his ethics. In our high desire to give our patients the highest bene-

fit of the latest pharmaceutic blessings, do we not sometimes (or often) prescribe those new and wonder-working proprietaries that the kind detail man assures us are the chief means of keeping us abreast of the times? In the early years of his practice, the writer prescribed a popular syrup of hypophosphites so frequently that many of his patients, when wanting a "tonic", would, at times of future need, think it unnecessary to add the doctor's fee to the dollar or more paid for the medicine; but would diagnose their own conditions and buy this remedy under its advertised and popular name directly from the druggist. As this particular syrup has been proved to be almost worthless for the diseases for which it was advertised, the doctor thus unintentionally started the patient prescribing for himself, decidedly started the sterilization of his own pocket; in fact, started the very process that adds to the high cost of medical care.

Economics

COMPARATIVE EXPENDITURES FOR MEDICAL CARE

W. C. Rappleye, M.D.,
New Haven, Conn.

(Reprinted from Jour. A. M. A., May 17, 1930.)

The financial aspects of medical care are receiving so much emphasis of late that there is a distinct tendency to lose sight of the relationship of this question to other national expenditures.

The annual cost of nongovernmental medical services is approximately 2.4% of our income.

Governmental expenditures provided out of taxation for medical and institutional care bring the grand total to about \$3,000,000,000 (3% of the national income).

Studies of the expenditures for medical care in different economic groups have given figures of approximately \$60 for the families of wage earners, \$62 for those of farmers and \$80 for those of office employees.

The public buys what it is taught to buy, and \$1,500,000,000 is spent yearly in that education through advertising. Three billions is spent each year in maintaining prisons, police courts, district attorneys and sheriffs, and represents the direct cost of crime and its prevention. The value of goods stolen every year amounts to approximately the same figure. During the last 10 years, the people of the country have scrapped automobiles for which they paid more than \$12,000,000,000.

Lighthouse Observations

EXTENT OF VENEREAL DISEASES IN THE UNITED STATES

Under the above caption an editorial in American Medicine, May 1930, says:

"The venereal diseases constitute a powerful force that saps national energy. It is difficult perhaps for the average physician to appreciate the extent of the venereal disease problem in the United States. Even genito-urinary specialists do not fully recognize the tremendous drain upon national vitality that arises from the specific diseases which they treat.

Thomas Parran, Jr., and L. J. Usilton (Jour. Social Hygiene, 16:31, 1930) discuss 'The Extent of the Problem of Gonorrhea and Syphilis in the United States'. Their summary is tantamount to an indictment of our national morality and should serve as an indication of the necessity for continuous oversight of all forms of venereal prophylaxis.

It is estimated that there are 643,000 cases of syphilis and 474,000 cases of gonorrhea constantly under medical care in the United States. The peak age group for the onset of both of these diseases has been determined as 20 to 25 years. The venereal disease rate among Negroes is greater than that among the white population. It is shocking to note that a recent study of the rural Negroes in the Southern States indicated that as high as 24% of the entire population, of those more than 1 year of age, showed a positive Wassermann reaction. Such a statement, however, cannot be evaluated without a knowledge of the percentage of the white population of the same states evidencing this tale-telling reaction.

The attack rate for gonorrhea and syphilis, as determined by a study of new cases admitted to treatment during one monthly period, in a city of the United States with population of 2,000,000 inhabitants, is represented by 3.46 for syphilis and 5.71 for gonorrhea. It is probable that these figures do not represent the exact facts, but they are sufficiently accurate to arouse sympathy and medical concern for a large group of the community.

What is more important is the fact that syphilis stands first or second among the most frequently reported infections to the Public Health Service from the several state health departments, while gonorrhea stands about fifth. This probably means that all cases of gonorrhea are not reported. And most of the daily papers of this country still are too prudish or stupid to print the words gonorrhea and syphilis!

According to Parran the number of non-effective days lost through venereal diseases would approximate 21,000,000 days per annum, or a loss of approximately one-half day for each male between the ages of 15 and 45 years in the United States. The financial loss indicated by this period of nonemployment is secondary to the devastating influences of the venereal diseases in terms of their complications and sequels. The dire effects of gonorrhea in terms of arthritis and endocarditis, not to mention orchitis and blindness, are perhaps not as startling, but they are as unfortunate as the unhappy results of syphilis in terms of locomotor ataxia, paresis and cerebral spinal syphilis. If one considers the catastrophic operations that result from gonorrheal infections of women, the burden of venereal diseases appears to be distributed most unhappily, and particularly so because so

much of it results from uncured diseases of the male.

Mental deficiency, sterility, an unnecessarily high infant mortality rate, a tremendous wastage of strength and life add to the toll taken by the venereal diseases, all of which, of course, are innocently acquired, in that they are not purposefully sought. These miserable parasites of Venus, the gonococcus and spirocheta pallida, are virulent enemies not merely of individual persons and families but of social welfare and organized society.

The extent of this problem is the strongest argument for a more complete program of venereal prophylaxis and therapeutics. Its prevalence can be diminished by the adoption of practical sanitary and medical measures. Sentimentality and devotedness to theoretic principles of morality only delay the public activity that is essential for prophylactic activity and success. To fight venereal diseases is not to oppose the dispensation of Providence for evil doing, although some perhaps still cling to this idea in the face of all sound thinking and the results of the struggle to diminish numerous contagious diseases that formerly afflicted mankind.

Prevalence of the venereal diseases in the United States today is in sharp contrast with its appearance in the Army and Navy during the World War. Is there wisdom in a viewpoint that utilized every possible means to safeguard men from venereal diseases that they might destroy their country's enemies or possibly attain glory in battle, injury or death, and then fails to continue these systematic prophylactic activities that these same men, their sons and daughters, might enjoy life in health and vigor with the satisfaction of living economically for their country!"

THE DRUGGIST'S PART IN CONTROL OF GONORRHEA AND SYPHILIS

Bigelow and Nelson discuss this topic (New England Jour. Med., 203:170, July 24, 1930) and present the following report:

Much has been said and thought and written concerning the dangerous practice on the part of some druggists of giving therapeutic advice and actual treatment to persons suffering from gonorrhea or syphilis. It was discovered, in a recent survey in Philadelphia, that more persons seek the advice of druggists concerning these diseases, than are treated by all the physicians, hospitals and clinics combined. This would seem to confirm the impression that druggists have the reputation with the public, of treating these infections. In fact, one-third of the Philadelphia druggists who admitted seeing cases of gonorrhea and syphilis, also admitted having treated them!

Some years ago the Massachusetts Department of Public Health sent a representative to several hundred of the drug stores in this state. Druggists were urged to discontinue the sale of proprietary preparations for the treatment of gonorrhea and syphilis and to destroy their stocks-on-hand. Without exception, the druggists visited agreed to comply with the request. It was too expensive, however, to visit all the 2000 drug stores in the state, let alone make later follow-up inspections. Obviously, also, the druggist might still dispense pharmaceutical preparations or actually treat cases, even though the last bottle of quack remedy had been thrown out of the window. Policing, therefore, amounts to little more than an expensive gesture. It will be only when druggists

themselves understand that both these diseases are so serious as to deserve the best of medical care, that they will refuse to accept the responsibility for improperly or inadequately treated gonorrhea or syphilis.

To the end that this point of view might be advanced, it was arranged, through the Secretary of the Massachusetts Pharmaceutical Association, that a representative of the Department of Public Health should meet with the Association at its annual meeting in January, 1930. The unanimous response to a request for coöperation took the form of the following resolution:

Whereas a considerable part of the prevalence of gonorrhea and syphilis is due to improper and inadequate treatment, as a result of self-treatment, treatment with proprietary preparations, and the advice of persons not qualified to treat either disease.

Be It Resolved that the Massachusetts State Pharmaceutical Association at its annual meeting held in Worcester, Mass., this twenty-seventh day of January 1930, expresses its desire to coöperate with the Massachusetts Department of Public Health in its efforts to have gonorrhea and syphilis properly and thoroughly treated and, therefore,

Be It Further Resolved that this Association deprecates the sale or advertisement of preparations designed primarily for the treatment of gonorrhea and syphilis, except on the prescription of a licensed physician.

In the same issue of the New England Journal of Medicine appeared the following editorial:

Early diagnosis, proper and adequate treatment and careful instruction of the patient as to proper conduct, are of vital importance in the control of gonorrhea and syphilis. Those who attempt to take the place of the qualified physician in these procedures assume grave responsibilities. Not only do they defraud the patient of his right to early, competent, individualized medical care, but they leave him, in ignorance, to spread his infection. Too many innocent wives and children are bearing the unjust burden of disease acquired from men who "thought they were cured".

Consequently it is with considerable interest that we note the coöperative spirit in which the Massachusetts Pharmaceutical Association has joined with the State Department of Public Health in its efforts to direct patients with gonorrhea and syphilis to early medical care. That a responsible organization should deprecate the advertisement and sale of proprietary preparations for the treatment of these diseases is to be expected. We presume that the majority of its members are agreed that dispensing pharmaceutical preparations only on the prescription of a licensed physician is the ethical and honest procedure. But that the Association should align itself with the Department in urging all druggists not only to leave gonorrhea and syphilis alone but also to advise patients to seek competent medical care, is evidence of active, rather than passive, coöperation. That 10% of the druggists, as reported elsewhere in this issue, have supplied themselves with pertinent educational material for those who seek advice is even more concrete evidence of good faith.

Again we find that the State Department of Public Health is interested in the practice of medicine by the private physician. There was, we are told, no urging of the druggists to send patients to the public clinics,—only the request to

advise the patient to seek competent medical care. We say "again" because the Department consistently has provided services to make the treatment of gonorrhea and syphilis simpler and more effective in the doctor's office. The Wassermann and bacteriologic laboratory service, the free distribution of arsenicals and silver nitrate, the frequent circularization of the entire profession with condensed texts upon the treatment of gonorrhea and syphilis, the distribution of information for the patient which upholds the physician in his insistence upon continued treatment after symptoms have disappeared—all are directed toward keeping the treatment of these diseases where it belongs—in the doctor's office.

Now it behooves the physician to put his house in order. May he who is treating gonorrhea and syphilis according to the obsolete medical school instruction he was given years ago, stop, look and listen, for things are no longer as they used to be. Small credit to the profession if patients suffering with such prevalent and dangerous communicable diseases as these, should be sent by an honest druggist, coöperating with the State Department of Health, to a physician who thinks that gonorrhea is only a urethral discharge or that syphilis is a sore that can be diagnosed at a glance and cured with a salve! Let us bear honestly the responsibility which we insist is ours."

Communications

COMPLIMENTS TO THE FIELD SECRETARY AND THE STATE SOCIETY

(Copy of a letter from the State Department of Public Instruction to Superintendents and Supervising Principals of New Jersey Schools.)

September 17, 1930.

To City Superintendents and Supervising Principals:

You will recall that last year a speaking tour was arranged by the county superintendents for Mrs. Ethel C. Taneyhill, Field Secretary of the State Medical Society. This was one manifestation of the coöperation that exists between that society and this department. The plan is to be continued this year.

If you heard Mrs. Taneyhill speak last year you will recall that she is a pleasing and interesting speaker before either pupils or teachers. Many favorable comments on her work were received at this office, and there were many requests for her return this year.

To pupil assemblies she will speak on one of the following topics according to your choice: The Story of Toxin-Antitoxin; The Life and Work of Pasteur; Flying High (a general health talk).

To teachers and parent-teacher groups, or other adult organizations, she will speak on one of the above topics, but in addition she has prepared for this year an instructive talk on mental hygiene. This last is the choice we recommend.

The county superintendents will again arrange the itinerary within the dates selected for your county. You should make application direct to your county superintendent giving the date, place, group, and the topic. No doubt the schedule will be arranged for those who make early application.

Although Mrs. Taneyhill is willing to speak 3 or 4 times a day, I think that we should make an effort to conserve her energy by—first, arranging talks before the largest groups possible, and sec-

ond, selecting places within easy traveling distance. A satisfactory schedule would be an assembly talk at one school in the morning; at another school in the afternoon; a teachers' meeting after school; and a parent-teacher group in the evening.

Please note that the mental hygiene topic is not suitable for pupil groups.

It is requested that you choose your date with care since it will not be possible to undertake readjustment of dates at a later time.

There is no fee or charge of any kind attached to this service. We are indebted to the Medical Society of New Jersey.

Very truly yours,

Allen G. Ireland.

Approved:

Charles H. Elliott, Commissioner of Education.

FROM THE FIELD

Mrs. E. C. Taneyhill, Field Secretary

At the end of the seventh week of the open season for the educational program of the Medical Society of New Jersey for 1930-31, we are able to report 55 talks to an aggregate audience of more than 11,000 persons.

The hook-up with the State Department of Public Instruction is of course an open sesame to the schools, as was the case last year. An important and far-reaching development of this year, however, has been the addition of the Physical and Health Education groups, combined with School Nurses and Child Hygiene Nurses, at all of the 21 County Teachers' Institutes meeting throughout the state during October. A very lively interest has been manifested by these groups in our new subject, "Mental Hygiene", and this topic is also being enthusiastically received by Parent-Teacher Associations. The presentation makes it quite clear that mental health and physical health are inescapably interdependent and that the correction, in so far as possible, of all physical defects is prerequisite to normal mental reactions.

The Pasteur talk is now available in graduated terminology, assimilable by pupils from High School to Fifth Grade ages. Its inspirational appeal, from the standpoint of achievement, and its personal appeal, from the standpoint of benefits to humanity, secure for this subject a welcome place in the educational field. I was especially pleased, however, when a High School principal recently commented on the *deeper motive* underlying the telling of this story. Said he, "You put immunology on a definitely scientific basis, discovered experimentally and proved indisputably".

As I stand on the platform of one school after another in this state, I often wish that you—the members of the Medical Society of New Jersey—could stand beside me, looking into the hundreds of eager, upturned young faces, alight with interest in the message that comes to them from you. In such moments you would be convinced, beyond all possible future doubt, that you belong there. When you hear one principal after another, in introducing your representative, affirm *health as the first aim of the school*, you would know conclusively that never, in justice to what your profession stands for in the community, could you do less than thus set your official seal on that endeavor.

The opportunity to do this has come to you largely through the vision and understanding of one member of your profession, Dr. Allen G. Ireland, Director of Physical and Health Education

in the State Department of Public Instruction. Not only has he secured the endorsement of Dr. Elliott, State Commissioner of Education, in the furtherance of this phase of your health education program, but his office has also taken over all correspondence relative to carrying out that program in the schools—a task which your lone field secretary could never compass in addition to filling the appointments made.

You may feel that one such talk a year to each group of pupils is merely a pebble thrown into a pond, but I am assured that in many instances the matter does not end there. The subject discussed is often assigned by teachers for further research and subsequent written themes. Not the least factor in its significance is the frequent reinforcement of the school doctor or nurse in some advocated health measure, or of the teacher in some precept laid down in the class room.

An annual message from the Medical Society is gradually coming to be the accepted order. One school was booked, after the talk on September 28, 1930, for September 29, 1931, and several principals have assured us of a welcome as many times a year as we could come to them.

I sometimes wonder if the history of medicine—the story of man's struggle for health—is not as important as his political or religious history, and whether, in some more enlightened day, it will not be accorded at least an equally prominent place in the educational curriculum.

OUR GROUP HEALTH AND ACCIDENT AND AUTOMOBILE INSURANCE

(A letter from Dr. Frank W. Pinneo, Chairman of the special insurance committee.)

To Members of the Medical Society of New Jersey:

The committee on Health & Accident and Automobile Insurance is pleased to report to you successful conclusion of negotiations to secure greater benefits under accident or illness. The change which we have worked to procure is to provide for sickness which does not necessarily *confine within the house*. The policy, hitherto, has insured against, "total disability which necessarily and continuously *confines within the house*" for 4 weeks. The policy after November 1, 1930, insures against "total disability although it does *not* confine within the house" and for 6 weeks. This, therefore, now covers sickness, or convalescence, not strictly house-confining and for half again as long as before (6 instead of 4 weeks). We repeat, what you have heard before, that this policy is the very best you can procure, peculiarly adapted to a doctor's needs, covering a wide range of contingencies in accident or illness, unique because especially written for us and not a regularly offered policy to others. Briefly stated its features are here enumerated:

THE HEALTH & ACCIDENT POLICY is with the Commonwealth Casualty of Philadelphia. The Principle Sum is \$5000 for loss, by accident, of life, or both hands, or feet, or eyes; \$2500 for loss of 1 hand or foot; \$1500 for loss of 1 eye.

For total disability from *accident* \$50 weekly for 52 weeks; for partial disability from accident \$25 weekly for 26 weeks.

For total disability from *sickness* (house-confining) \$50 weekly for 52 weeks; for total disability from sickness *not* house-confining \$25 weekly for 6 weeks (this being more liberal than hitherto, house-confining for 4 weeks.)

All the above indemnities are doubled for "travel" accident; i. e., principal sum \$10,000 and

weekly sums \$100 for total and \$50 for partial disability. Travel accident is agreed to include any "public vehicle licensed for regular transportation of passengers, including passenger elevators (not airplanes)."

Claims are paid within 30 days.

Notice of accident must be given within 20 days; of illness in 10 days; of death immediately.

No medical examination is required.

All members of the state society, of whatever age, in good standing and repute, are eligible.

The policy is non-cancelable for the policy year, when paid for. It is renewable if the company's experience on the group is not unfavorable.

Any change in rates or terms and any "acceptance or rejection or renewal of membership will be referred to the society" (not arbitrarily determined by the company).

The benefits under the policy are not contingent upon, nor affected by, any other insurance carried by the holder.

Not covered are: the first 7 days of disability from either accident or illness; venereal disease not innocently acquired in the practice of medicine; operations for chronic or preëxistent ailments; racing; aviation; injuries intentionally self-inflicted; nor intentional self-poisoning.

The annual premium is \$60 for ages up to 50 (next birthday); \$70 for ages 51-60; \$85 for ages over 60. The attained age, on entry or renewal, determines the premium.

The premium must have been actually paid for the policy to be in force.

The company is the oldest casualty company in Philadelphia. The experience we have in their settlement of claims, now the third year, has been prompt, fair, and considerate, without resort to technicalities. We do urge members to read their policy and know just what it covers.

Advantages of this group policy over any individually taken have been frequently manifested in this committee's service to the members, not only in the broad range of contingencies covered and the low rates of premium, but also in members having a negotiating medium, sometimes helpful in adjustments, as the committee is medical and functions always in the member's interest on claims.

Note that the policy when paid for is perfectly secure, under all circumstances, to the next renewal date; that renewal cannot be denied without reference to the society; that receipt (from agent as well as company) for premium paid, or your paid check, is perfect security.

Cards of application for necessary data are supplied for the asking by either this committee or the agent, the Way-Conklin Agency, Inc., 605 Broad Street, Newark, N. J. (Room 705, Telephone, Mitchell 2-0613).

The Trustees of the State Society, through a special committee which has included 4 of the recent presidents, Drs. Donohoe, Mulford, Wilson and Green, have investigated the contract and its reliability and announced "*we have no hesitancy in recommending it very highly to our entire membership*". And our President of this year, Dr. Sommer, also warmly endorses what has been achieved and urges members to appreciate their opportunity.

Automobile Policies. Liability and Property damage are insured by the Manufacturers' Casualty Insurance Company of Philadelphia under a

standard policy at a discount to our members of 15% plus a dividend (15%) at the end of the year.

The law on "financial responsibility" of drivers is very important and, though not "compulsory insurance", covers so many requirements in equipment and operation that the only assurance of avoiding delay and annoyance in securing the year's license is to carry insurance. We have a concise little pamphlet giving a digest of this law which will be given to enquirers by this Committee or the agent.

The policy on "Fire and Theft, Collision and Transportation" is a new one just negotiated with the Manufacturers Fire Insurance Company—collateral with the above Company on Liability and under the same management and agency. It is a "valued" form, which means one naming the value of the car insured and which holds without reduction throughout the year; therefore, insuring for a definite and unchanged amount. The premium is at a discount to our members of 20% from the standard tables. We think this is a decided improvement over the one we had, in coverage; and, furthermore, will enable all automobile insurance to be issued under one "cover" by one agent, the Way-Conklin Agency, Inc.

The New Jersey Commissioner of Banking and Insurance approves the authority and stability of all the companies; the Trustees' Committee approve of all and add their recommendation; this committee has again reviewed our contracts and with hearty commendation approved the latest increased benefits, at special meetings, June 13 and October 29, 1930.

(Signed) The Committee on Health & Accident and Automobile Insurance,
Frank W. Pinneo, Chairman.

APOLOGY TO DR. CATTELL

(Letter from Dr. George T. Tracy, Secretary-Treasurer of the Burlington County Medical Society.)

November 15, 1930.

Dr. J. B. Morrison,
66 Milford Avenue,
Newark, N. J.

My Dear Doctor Morrison:

Replying to your letter regarding Dr. H. W. Cattell and the failure of his name to appear on the official list of the State Medical Society.

At a regular meeting of the Burlington County Medical Society held January 8, 1930, Dr. Henry W. Cattell was elected to membership upon presentation of a letter of transfer from the Philadelphia County Medical Society.

His dues were paid to me January 18 and, unfortunately, I did not send them to the State Treasurer until February 21. Of course it was impossible for you to have published his name among those in good standing, because I had failed to send his dues before February 5.

I regret exceedingly the unfortunate occurrence. I am sending Dr. H. W. Cattell a copy of this letter, and ask that you be good enough to publish this letter in the State Society Journal in order that Dr. Cattell may be publicly vindicated.

Obliging,
George T. Tracy.

Public Relations

SASKATCHEWAN GRANTS TO DOCTORS PROVIDE CARE FOR SPARSELY SETTLED AREAS

(New York Times, Oct. 12, 1930.)

The problem of medical service for the sparsely settled areas of a new country is being solved in Saskatchewan by a system which provides for municipal doctors. Distinct progress has been made under a law which is slightly more than a year old.

Of Saskatchewan's 866,700 people, scattered over 251,700 square miles, 14.4% live in the 8 cities, 7.7% in the 80 towns, 8.4 in the 377 villages, 65.3 in the 301 organized rural municipalities and 2.9% in unorganized territory, the remaining 1.3% being Indians on their reservations. Thus there is an extensive area needing medical service, but which makes little appeal to the young doctor seeking to earn an immediate livelihood and to establish himself professionally.

The new Rural Municipal act gives to every municipality the right to make a grant up to \$1500 annually to a legally qualified medical practitioner who is a resident or is easily accessible on call, or it may guarantee his income to that figure. The municipal doctor must give free medical service to indigents, and if necessary perform the duties of health officer. On the demand of 25 taxpayers, the council must submit a by-law to the electors empowering the council to engage a physician for full-time services at a salary not exceeding \$5000 a year.

Already, under this coöperative health measure, there are 13 rural municipalities paying medical grants of from \$900 to \$1500 annually. Nineteen other municipalities have engaged municipal doctors at salaries varying from \$3500 to \$5000 per year. The system is giving much satisfaction, for it guarantees to the physician a reasonable income and gives the settlers needed medical service.

HOSPITAL SERVICE BY YEAR OFFERED FOR ESSEX NEGROES

Kenney Memorial Gives Health Council Proposed Scale of Prices for Disease Prevention Clinic and Other Services

(Newark Evening News, Nov. 7, 1930.)

Medical and hospital service sold by the year may be available to negroes of Essex County if a plan worked out by Dr. John A. Kenney, head of Kenney Memorial Hospital for Negroes at 132 West Kinney Street, is put into effect.

Dr. Kenney, himself a negro, submitted the plan last night to a meeting of the hospital division of the Essex County Health Council in the Robert Treat Hotel. The group voted to approve the plan, although they generally doubted it would be practical on the basis of fees suggested by Dr. Kenney.

Dr. Kenney indicated he would put the plan into effect, provided it received approval from the Health Council, the Essex County Medical Society and other similar groups. He is asking these bodies three questions—Is it legal? Is it ethical? Is it practical?

Dr. Kenney would offer a year's medical and hospital service to members of families paying from \$10 to \$25 per person per year in advance,

depending on the size of the family. The service would include the right to certain other treatments at half price.

The Kenney Memorial Hospital service in Newark would include these services to each subscriber without extra charge:

One complete medical examination each year.

Unlimited office consultation at any time during the year.

One week of hospital care each year.

OTHER SERVICES

In addition the following services would be offered to subscribers at half the usual fee or price:

Additional hospital service.

One maternity case per family per year.

Operations at the hospital.

Prescriptions filled at the hospital pharmacy.

Dr. Kenney's proposed schedule of fees for the family blanket service is this:

No. in family	Rate per month.	Rate per year.	Payable in advance.
1	\$2.00	\$24.00	\$22.00
2	3.50	42.00	40.00
3	4.00	48.00	45.00
4	4.50	54.00	50.00
5	4.75	57.00	55.00
6	5.00	60.00	57.00

Presenting the plan to the council division last night, Dr. Kenney declared it was his purpose to "place the hospital's benefits within the reach of a much greater number and thus add a bit to the relief of this serious health problem confronting the county by reason of ignorance, poverty and congestion among some Negroes."

COMMENDS HOUSING PLAN

He commended police drives in the Hill section of Newark and the City-Prudential Insurance Company housing plan.

"Our proposition", he said, "is a close follow-up of the former two. We propose not only to care for the sick but to foster a disease prevention program by periodic health examinations and by unlimited office consultation, thus permitting the detection of disease in its incipency where so often it may be arrested.

Our plan also contemplates a social service nurse whose chief duties will be to go into these homes and carry the message of good health and correct living, bring the needy ones out to our free clinics, secure attendance for the proposed monthly health meetings and thus link the hospital directly with the homes.

We know that there is very little that we can do personally affecting this great problem, but if the movement is in the right direction, the little helps to shove it along."

CLUB HOSPITAL PLANNED

(New York Times, Oct. 30, 1930.)

Medical and hospital service on a club basis, with individuals paying \$25 and families \$100 for a year's medical and hospital attention, is the experiment announced by the Mary Imogene Bassett Hospital here.

The hospital plans to organize a guild, with the members promised complete medical care for one year, maternity cases excepted, for their membership fee. The plan will receive a year's trial.

The hospital staff will have the right to decide whether a patient needs hospital care or can be treated at home.

Dr. George M. MacKenzie, the chief of staff, was reported the father of the plan.

School Health Department

INTERESTING TRENDS

Allen G. Ireland, M.D.,

Director of Physical and Health Education, State
Department of Public Instruction,
Trenton, N. J.

Watching developments in school health supervision throughout the country leads one to pretty definite conclusions regardless of his personal opinion. It is evident that removal of a pupil's clothing for purposes of examination at school will become an established rule. Moreover, the mother is going to be there to sit in with the physician, nurse, and teacher. There will be a sifting of the details supplied by these interested people and from that which is found there will be evolved a sound and rational procedure. The movement toward that ideal may not as yet be clearly visible on the surface but underneath it is speeding forward very rapidly. It will soon be heard.

Special classes. Occasionally an inquiry is received concerning the types of special classes now in operation in public schools. They are as follows.

- (1) Class for the mentally subnormal.
- (2) Short term classes for the temporarily retarded.
- (3) Nutrition class, now more frequently being called the "health class".
- (4) Outdoor and open window schools or classes.
- (5) Class for the conservation of vision.
- (6) Class for the blind.
- (7) Class for the hard of hearing.
- (8) Class for the crippled.
- (9) Class for children with speech defects.

Clothing facilities. This matter has not received the attention it deserves. School cloakrooms are too often walled-off spaces without ventilation or light. Hooks are placed so close together that circulation of air around the hanging garments is not possible. Any moisture or odor the clothes may be carrying cannot be given off, unless it be into the coat on a neighboring hook. It is not too far-fetched to wonder to what extent such conditions contribute to underlying or exciting causes of illness, particularly of the respiratory type. The school cloakroom should be a "port of call" for the physician on his inspection tour.

Notices to parents. The reports and notices of defects that are sent home to parents are rarely designed to attract the sympathetic interest of the parent. They are too formal and legal-looking. They are more formidable than appealing. It should not cause wonder that so many find the way to the waste basket. No doubt many of them are read, but it is not sufficient to merely state a fact. There must be something arresting and, above all, it should be within the comprehension of the parent. Under this last test many forms would fail.

Notes on school hygiene. School furniture should have a dull finish. A polished surface causes an irritating glare.

Colored chalk, except yellow, should never be used for writing or figuring. Its use should be confined to decorative drawings.

Schoolroom windows are not cleaned often enough.

Pupils should never be allowed to clean erasers by beating them together.

Irritable, misbehaving pupils become alert, attentive, and self-controlled in the cool classroom:

65° F. will work wonders for the teacher who will use it.

An unsolved health problem of significance is the question of the seating of pupils in the classroom. Or, rather, we know the facts, but few are applying them to actual conditions.

State Health Department

COMPLICATIONS OF VACCINATIONS

(A communication from D. C. Bowen, Director New Jersey State Department of Health)

Physicians are requested by the State Department of Health to pay particular attention to complications of small-pox vaccination, with special reference to encephalitis. It is requested that the department be promptly notified of any case. Director G. W. McCoy, United States Public Health Service, Washington, D. C., has written to Director Bowen inquiring if any cases have developed in New Jersey.

"There has not come to the attention of this department any case of encephalitis following vaccination against small-pox in New Jersey", replied Director Bowen.

Director McCoy in communicating with the New Jersey Department of Health said this complication has appeared in the United States, though the total number of cases is very small, and cases are known to have occurred during recent weeks.

"Epidemiologic and laboratory studies upon this condition are in progress at the National Institute of Health and we would greatly appreciate being notified of the occurrence of any such cases as may develop under your jurisdiction," wrote Director McCoy. "Any central nervous system involvement occurring within 30 days subsequent to vaccination is worthy of special study. Cases reported as poliomyelitis, encephalitis lethargica, and meningitis, might well be investigated as to their vaccination histories in order that cases possibly of the post-vaccinal type may not be overlooked."

Dr. Charles Armstrong, surgeon, United States Public Health Service, discussed post-vaccinal encephalitis, at the twenty-seventh annual conference of state and territorial health officers with the Public Health Service, Washington, D. C., June 3, 1929, saying: "The occasional occurrence of acute nervous manifestations following acute infections, such as small-pox, chicken pox, measles, mumps, etc., has been known for a long time; and there is an impression among many that they are relatively on the increase. These ailments, to which the so-called encephalitis which occasionally follows vaccination also belongs, constitute a group strikingly similar in their epidemiology, symptomatology, and pathology. Encephalitis as a complication of vaccination against small-pox first came into prominence in Europe in 1912, when 11 cases developed in London. Four of these cases, all fatal were admitted to the London hospital, where the pathologist, Doctor Turnbull, recognized them as pathologically similar to a case which had come to his attention in 1912."

Speaking of the cause of the disease, Dr. Armstrong said: The cause of postvaccinal encephalitis is unknown, an immense amount of epidemiologic and laboratory work having failed to elucidate the subject. Attempts to infect animals with the brain of fatal cases or with spinal fluid, have failed. Several theories have, however, been offered:

(1) That the complication is a result of the vaccination, activating some known or unknown infectious agent present in the virus or, more likely, in the vaccinated individual, in a quiescent or carrier state. This view is held by most European authorities.

(2) That it is due to the vaccine virus itself. This view is favored by Luksch, Leiner, McIntosh, Jarge, Gorter, Van Hederween and others.

(3) That it is due to some state of local anaphylaxis, or hyperergy, has been suggested by Glanzman, Rivers, and others.

On the subject of prevention, Dr. Armstrong said:

(1) Those who attribute the complication to the presence of some type of concurrent virus advise against vaccinating other than perfectly well individuals, and think that vaccination should not be performed in the absence of small-pox, when poliomyelitis or encephalitis lethargica is prevalent.

(2) In England, the Rolleston Committee has advised against the multiple insertion for vaccinations, and has recommended substituting a single, small, superficial insertion patterned after the "American method".

(3) Practically all authorities stress the importance of performing primary vaccination during the first year of life, since at this period post-vaccinal encephalitis is relatively much less common.

Current Events

CONFERENCE OF SECRETARIES AND REPORTERS OF COUNTY MEDICAL SOCIETIES

Trenton, New Jersey,
November 5, 1930.

The Secretaries and Reporters of the Component County Societies of the Medical Society of New Jersey convened at the Stacy-Trent Hotel, Trenton, November 5, 1930, and the meeting was called to order at 11.10 a. m. by the Chairman, Dr. George H. Lathrope.

Those in attendance were: George N. J. Sommer, President of the State Society; George H. Lathrope, Chairman of the Conference; J. B. Morrison, Newark, Secretary of the State Society; H. O. Reik, Editor of the State Society Journal; Joseph H. Marcus, Atlantic City; John Irvin, Atlantic City; S. T. Snedecor, Hackensack; George T. Tracy, Beverly; B. Franklin Buzby, Jr., Camden; Robert S. Gamon, Camden; Frank W. Pinneo, Newark; H. B. Diverty, Woodbury; Harry J. Periberg, Jersey City; E. G. Waters, Jersey City; Barclay Stokes Fuhrmann, Flemington; A. D. Hutchinson, Trenton; D. F. Featherston, Asbury Park; William H. Van Oehsen, Bradley Beach; Albert J. Ward, Morristown; Marcus A. Curry, Greystone Park; Alfred Woodhouse, Toms River; George W. Lawrence, Lakewood; Lancelot Ely, Somerville; J. L. Young, Somerville; F. P. Wilbur, Franklin Furnace; George W. H. Horre, Elizabeth; Russell A. Shirrefs, Elizabeth; L. Cook Osmun, Hackettstown; F. A. Shimer, Phillipsburg, and Walter F. Donaldson, Secretary Pennsylvania State Medical Society (guest).

The Minutes of the last meeting were read by the Secretary, Dr. A. D. Hutchinson. There

being no corrections, the Chairman announced that the Minutes would stand approved as read.

Dr. Lathrope: We are always glad to have Dr. Morrison with us. He has always been with us at these meetings; in fact, I think he, perhaps as much as any one, is an instigator of this young and struggling organization. For 3 years, as you know, we met at Atlantic City during the annual meetings of the State Society. Then, 2 years ago, we had our first meeting here in Trenton by ourselves, separate from the State Society, and at that time we became organized. This is our third meeting under the organization.

Dr. Morrison is going to talk to us for a few minutes this morning about some "Important Matters for County Society Consideration."

Address to Conference of Secretaries and Reporters

John B. Morrison, M.D.,
Newark, N. J.

With your permission, I shall take up only a few moments to present to this body some thoughts on our present day administration of medical relief. The concern all over the country is profound indeed when the government would appoint a commission and give it 5 years to make an exhaustive study of the cost of medical care. There is undoubtedly a deep revulsion of feeling pervading the laity in reference to medical attention. The problem of a more satisfactory administration of medical relief faces us and demands solution. The time for generalities and the expression of individual opinion has long since passed. This problem must be taken up, considered, discussed and earnestly studied by such groups as these, officers of component societies in the state and union, representing organized medicine.

We must, in the course of the immediate future, formulate some acceptable plan to save ourselves from the imposition of state medicine as at present conceived and practiced. I shall attempt to show you later on how the web is closing in on us. We have to face the fact, no longer to be ignored, that the great mass of the general public is dissatisfied, highly dissatisfied, with the administration of medical relief at the present time. And while we as a profession may blame the public for demanding expensive laboratory examinations and hospital facilities which seem to us unnecessary, still the fact remains that the great mass of the people cannot secure the medical attention *which we have educated them to expect*, at a cost they can afford to pay.

What the remedy is must be determined by such groups of medical men as this. Shall we attempt to standardize all our fees and charges before the government does it for us? Shall our hospitals employ efficiency experts and cut the cost of construction, equipment and administration to the bone? Shall we see that hospital charges become uniform? Shall the pay clinics over the country continue to give the services which, in the main, are today excellent? And if and when they can no longer afford to do so on their endowment funds, shall they request the government to supplement those resources? Shall municipal hospitals and those of our institutions which furnish medical care at a charge below cost demand and receive government aid? Is the experience of the government in Public Health Service, in the medical care of the army, the navy, the postoffice employees, the veterans, a forerunner of state medicine?

We have gone far toward state medicine

already and every step has later been hailed by our profession as an excellent procedure. We have seen the health of the state placed under state control. The government at Washington is spending millions on its Public Health Service. We have seen full-time nurses and fairly well paid physicians examine our school children; even their diet is supplemented when necessary at the expense of the government. We have seen contagious disease hospitals established by the state. Our mental and defective patients are given similar care. Many industries are treating their own accidents and occupational diseases and carrier associations are running free clinics.

In the city of Newark, the Commissioners may enter the wedge of state medicine. They have considered doing away with district physicians and have suggested paying voluntary physicians \$1.50 a call for treatment of indigent persons. There is no social service supervision provided and in emergency cases none could be instituted. How long do you believe it will be before this privilege is enormously and unscrupulously abused, and will cost the city millions of dollars a year?

In all probability, within the next 15 years our present method of medical relief will be thrown into the discard. It is highly unsatisfactory to both the laity and to our profession. Physicians practicing near hospital centers, medical foundations, pay and free clinics, are almost starving. At almost every point the revenue of the so-called family physician is being reduced. As has often been asserted, we are in a process of evolution in the administration of medical relief, just as evolution is going on in other fields. We cannot hope to stem this evolution and keep things in statu quo. To attempt to do so would be chimerical. We are in an age of organization and specialization, and the general practitioner as we have conceived him in the past has small chance of remuneration or even of continued existence except in rural districts.

You are more or less familiar with several remedies suggested. One is that we establish adequate medical care for the community through county society organized medical centers and facilities. Shall this include the rich and poor? Shall all fees and charges be scheduled by the county society? What equitable distribution of the financial returns shall be made to the members of the profession?

A plan has been suggested whereby individuals or families could carry insurance just as the self-insured industries do today. In some countries this would be impossible because of the low standard of living but in America, with its high wages and the financial condition of the average worker as compared with those abroad, this would seem feasible.

Another suggested plan would provide for compulsory insurance to meet the cost of medical care.

The following clipping from the New York Times, under date of October 29, 1930, would offer a solution:

"Coopertown, N. Y. Medical and hospital service on a club basis with individuals paying \$25 and families \$100 for a year's medical and hospital care is the experiment announced by the Mary Imogene Bassett Hospital here. The hospital plans to organize a guild with the members promised complete medical care for a year. Maternity cases are excepted. The admitting physician shall decide whether or not a given case should be treated in the hospital."

This is a revamping of the old *guild* idea in England. After a year's trial the fees will probably be found insufficient. It is not in any

event the solution we are looking for, inasmuch as it further diverts practice from the family physician.

For 16 years the United States Compensation Commission at Washington has furnished medical and surgical care to the employees of the United States Post-Office in accidents and diseases arising in the course of duty. The Commission has paid the members of our profession the same office and home call fees which they are in the habit of charging others in the community. While I cannot state the number of employees so treated it must run well up into the thousands. It has worked admirably. The employees have received excellent attention and the profession is satisfied with the remuneration.

Some such plan might well be applied to the entire population in America.

We have theorized about this matter for years, but it is no longer a theory. The condition faces us in the immediate future. In the beginning, the net was far flung. The first cast brought in Germany. The next haul included Great Britain. In the year 1911 the British Government imposed state medicine on the profession in that country. Medical care was only provided for the adult population of laborers, about 15,000,000 individuals; their dependents were not covered. The medical profession, as represented by the British Medical Association, protested and argued against this measure for years. During all this time, learning by experience, they pointed out its deficiencies and have suggested ways in which these could be remedied. This year the British Medical Association, after 19 years of study of the subject of medical assistance by the state, has suggested to the government a comprehensive plan covering the general practitioner, the surgeon, the specialists in all fields, the dentists, nurses and hospitals, the object being to ensure that: "every kind of service which may be necessary for the prevention and cure of disease and for the promotion of full mental and physical efficiency should be at the disposal of every member of the community."

This year France has adopted state medical insurance. The net has drawn closer and closer so that now, on this continent, in the great province of Saskatchewan, in Canada, which has about the same geographic extent as our state of Texas, state medicine in its actual form has been introduced, although it is at present elective in the different municipalities. It is reported to be highly satisfactory both to the laity and to the medical profession.

A commission has been appointed to investigate the field of medicine and the results of medical treatment in the vast province of British Columbia. A preliminary report says: "Our investigations so far convince us that there is justification and a general demand for the introduction in British Columbia of an economically sound and equitable public health insurance plan."

Now the anglers are fishing nearer home. Let me call your attention to the fact that within the last 2 years public health insurance bills have been introduced in 3 of our state legislatures. In these is included the great commonwealth of Massachusetts, one of the birthplaces of medicine in America. The bill introduced there last winter has been revised and modified for reintroduction this year. An old age insurance bill passed the legislature in the state of New York and we are informed that a public health insurance measure will be introduced at the coming session.

It would seem at this time just possible to predict that Massachusetts, the home of industry, enterprise, education and culture, may, just as it

started the revolution against British tyranny, institute a revolution in the administration of medical relief in this country.

Again, let me call your attention to the fact that the province of Saskatchewan referred to is the greatest agricultural area in Canada. There is no congestion of population, no herded humanity, little or no unemployment and no abject poverty. In the equally vast province of British Columbia, devoted to the pursuit of agriculture, fruit raising, lumber and mining industry, there is a mixed population exactly similar to that of our own mixed agricultural and industrial states. The living scale, the habits and customs of the people there and in our own corresponding states are identical. Their social and economic problems are ours. All that an observer can see is that we are living under different flags. I am referring to this simply to demonstrate that this call for medical relief on some new and improved plan is a call from the great middle class of the people.

Twenty years ago when the first bills to legalize practice of the cults were introduced in our legislatures they were thought to be a huge joke, the work of fanatics. But citadel after citadel fell before their well laid plans and propaganda. And why? *Because we continued to slumber in our false sense of security. We had no preconceived plans to meet the onslaught.*

I am not an advocate of state medicine. In this brief paper I have not been discursive and have offered no arguments. Simple facts, observations and tendencies, have been stated so that he who runs may read. The proposition has been presented in the hope that it may lead to study, planning, and possible economic solution by county or state societies. The lay bodies fostering state medicine are well organized, have ample financial means, and their plans are ready. If we are to prevent the dissolution of the practice of medicine as we see it today and preserve its better features for humanity as well as for our profession, it must be done by the accumulated thought and action of such bodies as you represent.

DISCUSSION

Dr. Lathrope: This seems to be an extremely important subject. We have a new development of the medical profession, whether we like it or not. One thing I would like to put before you as a basis for discussion is this: State Medicine is here; the question is not whether you want it or do not want it, we have it already. The question is do we want to control it, and, if so, how are we going to proceed?

Dr. Morrison: There was one paragraph in my paper which I did not read. As you know, State Medicine was introduced in England against the advice and despite direct opposition of the British Medical Association. They struggled in opposition for 16 or 18 years. This year, not to be caught further napping, the British Medical Association itself has offered to Parliament an amendment to the present system, providing that in future all people, rich and poor, shall be given complete medical attention at the hands of the state—that every possible thing bearing on mental or physical health shall be offered to every member of the community. *This is accepting state medicine in its broadest form.* It is introducing every sort of protective and preventive medicine into this scheme. It is probably the most comprehensive plan that has yet been offered, under any government, and it has the full backing of the organized British medical profession.

Dr. Lathrope: The Chair has this suggestion to make: That, perhaps after thinking this matter

over, some of you may have something to say at the round table discussion during luncheon, and the Chair will entertain a motion at that time that each county society shall during the course of the succeeding year, through request of those of us who are here, undertake at least one meeting for discussion of this subject.

I made out this program some time ago and offered it to Dr. Hutchinson, also to the Secretary of the Society and to the Executive Secretary, Dr. Reik. Dr. Reik has left himself off the program and I would like to know, before we proceed further, whether he has any explanation to offer?

Dr. Reik: I have but would like to reserve it until later on, when we have the round table talk.

Dr. Lathrope: A year ago I had the very great pleasure of receiving, at the request of Drs. Morrison and Reik, an invitation from the Pennsylvania Conference of County Society Secretaries to attend their meeting in Harrisburg. I did so, and was tremendously impressed with the whole meeting. I was particularly impressed with the conduct of the meeting by the presiding officer, Dr. Donaldson, of Pittsburgh. One impression I brought away with me from that meeting was their discussion of Councillor District meetings, which was to me a new idea. We had held nothing of the kind over here up to that time, so far as I knew, and the idea had never occurred to me. It was exceedingly interesting to hear their discussion of it and to learn what an influence for good those Councillor District meetings had throughout the state. I immediately thought it would be a good thing for us if we could persuade Dr. Donaldson to make the trip here this year and talk to us on that subject. He has very kindly come all the way from Pittsburgh to oblige us and I want to assure him that we deeply appreciate it.

It is with great pleasure that I introduce Dr. Donaldson, who has for 12 years been the Secretary, and an exceedingly efficient one, of the Pennsylvania State Medical Society, which is one of the best medical organizations in the country.

Councillor District Meetings

Walter F. Donaldson, M.D.,

Pittsburgh, Pa.

Mr. Chairman and Gentlemen of this Conference: Ostensibly, as you look at this program, you will get the impression I am here to address you and probably contribute something of benefit to your state. As a matter of fact, I am here in complement to what we have already received in Pennsylvania from well-known men in your own State Medical Society. We have had the pleasure on more than one occasion of having at our Conferences of County Secretaries, Dr. Morrison, Dr. Reik or Dr. Lathrope; and furthermore, through the meetings 3 times a year of the Tristate Medical Conference, which includes the Officers of the New Jersey, New York and Pennsylvania Societies, I have had the pleasure not only of meeting these gentlemen but also the Presidents of these societies and I assure you that our Pennsylvania State Society has gained much from these contacts. So, I esteem it a privilege to come here today to tell you anything that I can that may be of help, which we have gained from experience, but at the same time to assure you that your State Society is at the present time, and has for a number of years been, in the hands of mighty good and well experienced men.

Regarding these Councillor District meetings which we have held in Pennsylvania for a number of years, I have this to say: That they are

probably—aside from our Annual Meeting of the State Society—the most helpful meetings that are held throughout our state. I am not, of course, familiar with the division of your Society into such districts but I do know that you have councillor districts and of course each district is composed of a group of component county medical societies. I believe, however, that there is this one great fundamental difference between our plan and your plan. In Pennsylvania, the members of our Board of Trustees are also Councillors. You, of course, have a Board of Trustees in your State Medical Society and I do not need to tell you how great are their responsibilities. In Pennsylvania, our Trustees conduct all of the interim activities of the state society—I mean in the period between annual sessions of the House of Delegates. Therefore, the members of the Board of Trustees are familiar with the activities of all standing or permanent committees of our state society; with the conduct and publication of our monthly journal; with the financial problems of the society, because all of the finances are handled by the Board of Trustees, even those originally created by the House of Delegates. Our Board of Trustees meets regularly 3 times a year, and at the call of the Chairman when necessary. At these meetings all standing committees, which later on report to the House of Delegates, are expected, if they have any reports to make—reports of progress, or if they desire suggestions or advice—to come before the Board of Trustees. The reason I mention this fact is that the members of our Board of Trustees are also Councillors, and through this familiarity with conduct of the business of the State Society each one of these Trustees, as a Councillor for a district, is kept familiar with what is going on in the State Society between annual meetings. And since his duties as a Councillor require that he must conduct at least 1 meeting annually in his district I believe it needs no argument to support the statement that he will take to that group of component societies the very latest developments in relation to problems that are before the Board of Trustees.

I do not wish to imply that this is an element of strength in our Councillor District meetings that you may not have in yours, because I am sure that you will find methods of most service in your Society.

Before going on, let me say that we have one other thing in Pennsylvania which you might find of some advantage. Among the officers of our state society are not only the Board of Trustees who are also Councillors, but we have District Censors. A District Censor is a member of a component county medical society who has been recommended, or nominated, to the House of Delegates at the Annual Meeting of the Society by a component society; and, of course, he has always been elected by the House of Delegates. Among our state society officers are 62 District Censors. Their duties are not heavy but are largely of a judicial character. Members who have been disciplined by component county societies and who wish to carry their case further must do so through the District Censor of the county society. He, in turn, will call a meeting of the District Censors of other county societies in his Councillor District.

Now, the first item of business in an ideal meeting of a Councillor District is a report from these District Censors. In other words, that group does not get together without this officer, from each county society in the district, being there to report to the group just what has been going on in his particular county society since the last councillor

district meeting. This may seem like a trivial detail but I want to give you all of the points which we think help to make our councillor district meetings so valuable. I am sure you can conceive of a group of societies coming together and the men from one county not having much knowledge of what goes on in the neighboring county society in that very same councillor district. So, we always open with a report from each District Censor, limiting that report to about 60 seconds. In that time, he reports the number of members, the number that have died since the last meeting, number of scientific meetings held, and the interest or lack of interest that has been shown.

The next thing that we find of importance on an ideal program for a councillor district meeting is the preparation of a history of one of the county medical societies composing that particular councillor district. Of course, that history must be carefully prepared, made as exhaustive as possible and epitomized, because it goes without saying that you won't get any group of doctors these days to sit and listen to a 30 minute's discourse on the history of a neighboring county society. I believe, however, that always some inspiration from that epitome has been gained. Furthermore, that history becomes the property of the Councillor in charge of the district, who in turn sends it to our Archives of the State Society, and in that way we are slowly accumulating material for what we trust will be a worth-while history of the Medical Society of the State of Pennsylvania.

The next speaker on the program of an ideal meeting of this kind will be the President or the President-Elect of the State Society, or both if we are fortunate. He has an opportunity at this meeting to sell to the members of the component societies present the benefits, the service and the ambitions, of the State Medical Society, and I am sure that you are willing to admit that many of your members are in comparative ignorance of what the State Society does or is able to do for its members.

Next in importance on this program—possibly of greatest importance—are the speakers who present the scientific part. We endeavor to have them come from within our own ranks, that is from the Medical Society of the State of Pennsylvania, which has nearly 8000 members. However, if the Councillor for the district and his Committeemen who represent the various county societies in the district prefer to have speakers from outside the state, they may have them. The state medical society, under our present plan, finances to a large extent these Councillor district meetings.

The ideal meeting will last practically a full day; at least it will have 2 sessions, varying of course with the districts represented. If the meeting is in a purely agricultural district it cannot very well be held in the evening. However, in making up our Councillor Districts in Pennsylvania, we attempt to have at least 1 county which contains a good-sized city related to a group of mountainous or agricultural counties; for obvious reasons. In such a district as that, the meeting can be held both in day time and evening.

These meetings, as I have briefly related them to you, afford, as I believe you will admit, an opportunity not only to have those who attend become better acquainted with their neighbors in adjacent counties, to become better acquainted with the history of their own and their neighboring county societies, but also to become better acquainted with the problems of the State Society, and finally to indulge in some scientific

discussions. In Pennsylvania we encourage these councillor district meetings by sending out notices for them. We encourage the scientific feature by paying the travel expenses of those who take part in the scientific discussions. We do not encourage bringing in any great number of men for any single meeting because we have learned from experience that teachers are perfectly willing to discuss the same subject at 2 sessions or different subjects at both sessions.

The last councillor district meeting I attended was only last month; the Tenth District, of which Allegheny County is a part. The Allegheny County Medical Society was the host to the other counties in the district to this extent: They furnished the meeting place and extended the welcome. The program began at 2 p.m. and was devoted to a study of arthritis. There were 4 papers, including case reports and presentation of patients by members of the local society. At the conclusion of that part of the program, a physician from the Mayo Clinic discussed the subject of arthritis. We then adjourned for dinner, a social affair, of course, where the price is kept as low as possible. Two hours later we went back to the same meeting place and the same speaker gave us 1 hour and 20 minutes on other phases of the subject of arthritis. That is a typical Councillor District meeting as held in a county having a fair-sized city. Previous to that, in September of this year, I attended a meeting of the Third Councillor District, at Valley Forge. There are no large cities in that region. That meeting was held in the late morning and all afternoon. So that, as you see, no fixed rule will apply to any given councillor district.

I have had the pleasure of reviewing the plan suggested by Dr. Lathrope, which differs somewhat from our plan. I strongly urge you to adopt this plan, or some modification of it, and I promise you that after a few years, holding at least one meeting annually in each councillor district, you will be surprised and gratified to learn how much closer your component societies are welded to your state society and how much better acquainted your individual members throughout the state are with the problems that have been brought to your attention, as, for instance, this morning by Secretary Morrison.

I hope this meeting will resolve itself into an adoption of the plan and if I can be of any further help in answering specific questions I shall be glad to be called upon.

DISCUSSION

Dr. Lathrope: As some of you know, we are not entire strangers to the councillor district meetings because last spring the Fifth District held such a meeting. I am not sure whether they had one the year before or not. At any rate, the ground was broken in that district. I came back from the Pennsylvania meeting full of enthusiasm for the idea and talked about it to some of the men in the First District but we never got around to the point of having a meeting. I think the matter is one well worth serious consideration. Now, Dr. Donaldson has set before us very clearly and in a very simple fashion this bit of state society machinery as it works in Pennsylvania. One of the things we wish to consider in the business section of this meeting today is whether or not we shall start such meetings in New Jersey, and on what basis. It is most important for us to be informed in this clear and concise way. Dr. Donaldson's talk is open for discussion and for questions.

Dr. Shimer: Did I understand Dr. Donaldson to

say that they had 62 counties organized? They have more than 62 counties in Pennsylvania, haven't they? I was wondering if all your counties are organized, and how they are graded.

Dr. Donaldson: We have 65 counties but 4 of them have no organization; these are mountainous counties without much population. However, our By-Laws provide that the physicians in such a county may request to be taken in with an adjoining county, and our Board of Trustees invariably approves such requests. Within the year we have approved the organization of the Wayne-Pike County Medical Society. Pike County is a small mountainous region, with very few physicians, and its physicians asked to be absorbed by the neighboring county society. The physicians in all of the counties of Pennsylvania are members of the 62 county societies. Our Constitution and By-Laws, as printed, carries a map of Pennsylvania showing the manner in which the various societies are grouped into Councillor Districts. I would be very glad to leave this map with your Chairman. This also describes the duties of the Councillors and of the District Censors of whom I have spoken.

Chairman: Dr. Diverty, what is your idea of the sentiment down your way in regard to Councillor District meetings?

Dr. Diverty: So far as I know they are very much in favor of them.

Chairman: Are you going to do it again?

Dr. Diverty: I don't know. I have not heard anything about it. We have a meeting of our local society week after next, but I do not know who was the instigator of this movement in the Fifth District.

Chairman: Has Dr. Marcus anything that bears on it?

Dr. Marcus: No, I have not. I do not recall having an invitation to the meeting and knew nothing of it until it was over. I think these meetings would be a splendid idea. It would bring the organization into closer harmony, with an interchange of ideas, and would prove of inestimable value in so many phases.

Dr. Irvin: I did not even know that we had Councillor Districts in this state. At least an organization of that kind would let the members know more about what is going on in the state society. It would be very advantageous to discuss our problems at such a meeting.

Dr. Reik: In the absence of so many of the county society officers of the fifth district, may I say a word? There have been 2 meetings held in the Fifth District. Dr. Crowe, who is the Councillor of that District, originated the movement in 1929 and they held a meeting that year. They had a very much better attended meeting in the spring of 1930 because Dr. Crowe had more time to work it out and it was held at the Woodbine Institution for Defective Children. They had a very good attendance considering the fact that there had been only a short time between the sending out of notices and the time of the meeting. Those attending were well entertained, shown through the hospital, and it was one of the most enthusiastic meetings I have attended in the southern counties. There is a favorable feeling about it, I believe, and I think Dr. Crowe intends to try to arrange for a meeting during this fiscal year.

We may explain the absence of members from some counties today by the fact that one of their colleagues in Cumberland County died yesterday. That explains Dr. Lyons' absence. Dr. Corson is a witness in court today and has sent his excuses. However, the feeling I gathered last year down

there was that the first councillor meeting plan established in New Jersey was a success.

Dr. Pinneo: In my section we have a very complicated field. Our county society meetings are well attended and full of enthusiasm. We have had wonderful medical meetings considering that every hospital has its staff meetings and scientific discussions, not to mention the social side, and we are trying to divide the programs so that there will not be duplication. For instance, we have the stated meeting of the Academy of Medicine every month, which is purely scientific, then the county societies take up other problems. Our district matters also come in for consideration. I think that the difference between Pennsylvania and New Jersey is quite marked. In the more widely scattered sections these meetings would be of more value than in the thickly settled sections. When we consider the small proportion of members who attend the State Society meetings, I do think we should encourage more frequent attendance and this should be emphasized at the county meetings. The members should be more familiar with the activities of the state organization and know the advantages it has to offer. I do not think we should or could have in our district a prolonged meeting. A day's meeting would be out of the question. The remaining question is—In how far should it be a scientific and business meeting? I do approve of the general scheme.

Dr. Marcus: Dr. Pinneo's last remark is very appropriate. I feel also that as far as the business meeting is concerned it would be an excellent idea, but we should enter into discussion as to the relative merits of a scientific program for such a meeting because we do have a lot of scientific meetings and a day of that sort might detract from the particular element upon which we wish to draw for other meetings.

Dr. Lathrop: We have up in our part of the state a somewhat similar thing, which I simply cite because it gives some idea of a thing that has been working successfully; the Tri-County Medical Society which had its thirty-third annual meeting this fall. That organization meets just once a year, the second Tuesday in October. It is for social and scientific purposes. I think the other men here from that district will bear me out that those meetings are of the greatest value. We will ordinarily have an attendance at these meetings of about 50, and that leads up to something I should like to ask Dr. Donaldson. In the first place, if you are going to have a meeting of 4 or 5 counties, it must be financed. There must be a meeting place, printing, etc., and finally there is the dinner; if speakers' expenses are paid, there is another item to be met. I would like to know just how they finance those meetings in Pennsylvania?

The second question concerns attendance. Suppose you have 5 counties which in the aggregate have 500 members. They will turn out at their own county meetings from 30 to 40% of membership. What is the average proportion attending the councillor district meetings?

Dr. Donaldson (closing): First of all, if you go ahead with such a plan as outlined, the Councillors should arrange dates for their meetings so as to avoid conflict. We learned by bitter experience in Pennsylvania that it doesn't pay to permit the individual Councillors, of whom we have 11 just as we have 11 Trustees, to arrange their meetings to suit themselves. We once had the experience, for instance, of having 3 councillor district meetings in the eastern end of the state occur on 3 successive days. Now, we always hope each will attract attendance from counties far removed,

and that interfered very materially; so, we now are prepared to announce in February the dates for the 11 councillor district meetings of the year, thereby avoiding conflict. It is natural for the mountainous or agricultural districts to want to hold their meetings in midsummer, and we attempt to arrange the meetings in the larger cities in the fall or winter. That should be arranged, I think, through the office of your State Society's Secretary. Thus, he could coöperate and there would be no conflict.

Your chairman mentioned the Tri-County organization, which is no doubt valuable and attractive. We have made it a practice to have our district organizations absorb such county groups.

The meetings should be financed by your State Society to which all of these men who are now in the Tri-County group pay their annual dues. It will relieve them of a certain amount of annoyance in arranging and financing the program.

I would advise each Councillor to hold a meeting once a year with the secretaries of the county societies in his district, invite them to dinner, and discuss their views and plans for a program for the coming councillor district meeting. We tried that plan in Pennsylvania this year.

One thing I should have mentioned: I don't know how active your Woman's Auxiliaries are in New Jersey. They are very active in about 34 of our 62 counties and our State Society Woman's Auxiliary is particularly active, so that in connection with many of our councillor district meetings there is held at the same time a combined meeting of the Woman's Auxiliaries of the district. And, by the way, our Woman's Auxiliary, in Pennsylvania, has auxiliary district organizations which are exactly parallel with the councillor districts of our State Society.

Your Chairman asked about the financing of these councillor district meetings. As I have already said, the state society contributes in no way to financing of the social features of such a meeting. We expect every man, of course, to pay for his own dinner, and as the dinner is usually at a hotel or country club there is no additional expense for a place of meeting; so there is not much expense to consider.

As for attendance, I haven't time to analyze that, but I will say that the attendance is never disappointing. At the Valley Forge meeting there were 126 in attendance. That many men gathered together makes a very inspiring group. At the district meeting held in Pittsburgh recently, there were 176 at the afternoon meeting and 220 at the night meeting. Of course, you might expect a much larger attendance than that from a councillor district that has 1 society as large as the Allegheny County Medical Society, but I think you will admit that an audience of 176 to 220 is well worth talking to.

Two gentlemen have spoken of the question—Whether or not a scientific program shall be related to this councillor district meeting. The councillor district meeting is primarily a meeting planned for sociability and to relate more closely the members of the component county societies to their state society. Nevertheless, I cannot help but feel that it would be too bad to neglect the opportunity to add to that program some scientific contribution. This whole plan, as I see it, is intended to have your state society be the one organization around which all of your county medical activities shall rotate, and to make your state medical society so valuable to members that they will in time look upon the payment of dues

into their county and state medical society as almost the one society contribution that they are called upon to make, aside from some special organization in which they may be interested. So, the councillor district meetings will in time, I think, absorb tri-county meetings and things of that type.

Chairman: At Dr. Hutchinson's suggestion, a rising vote of thanks will be given Dr. Donaldson for his splendid efforts. (This vote was unanimously given).

Will some one make a motion to appoint a Nominating Committee?

Motion was made by Dr. Marcus that a Nominating Committee be appointed by the Chair to bring in a ticket for election of new officers. The Chair appointed Drs. Osmun, Snedecor and Gamon.

A paper was read by Dr. George T. Tracy, Secretary of the Burlington County Medical Society, on "County Society Work."

Some Problems of the County Society

George T. Tracy, M.D.,

Beverly, N. J.

The problems of Burlington County are somewhat different from those of Essex County and yet the large majority of our problems have very much in common. I take it the purpose of these conferences is primarily to get together and discuss our problems, for with the exchange of ideas comes development of plans which may result in later action. I have always felt compensated for having attended these conferences and after all, it is the ideas we take back to our county societies which ultimately count.

It has frequently been said that a society is just as good as its secretary, but for a secretary to maintain a lively creative interest in any society means that he has got to have the coöperation of that society. Of course, secretaries usually hold office for life, or at least as long as they will allow themselves to be elected, while a president's tenure of office is usually for 1 year. I do not favor election of any officer merely to do some man an honor. He should manifest ability as an executive, have shown initiative, have vision and be willing to take the time from his practice necessary to organize the society and promote its programs.

Most of our county societies should meet at least 6 times a year, for a society that meets but twice a year will experience great difficulty in developing fraternalism among its members and in taking an active part in the community activities.

I have noticed that men graduated within the last 3 or 10 years have been more inclined to join than the earlier graduate, say of 20 years ago, when it was sort of considered an honor to be asked to join, or the older members had an idea the young men were not fit material or had not served sufficient time to qualify as members.

Probably the fundamental principle which stimulated physicians to organize was the desire to advance themselves scientifically, by discussing among themselves the scientific problems which they encountered; and the papers and discussions presented before the county societies 100 years ago were of that character. Today the physician is no longer limited, in his search for scientific advancement, to county society programs; he can find discussions upon almost any subject in a variety of professional and nonprofessional journals. But the program makers do not seem to realize this, for the principal change in the average county society program in these hundred years has been

that most of the papers are prepared and read by physicians foreign to that society.

The county society must be made worth while if it is to get and hold the interest of its members. If the program does not bring something of value to its members the society will die. One of the most important duties of the county society is to provide opportunity to develop its members by placing them on the program, to the end that they will be better practicing physicians, better students, better speakers, and better writers. Therefore, I do not believe that all essayists should be from the outside, but rather more from members of the local county society.

I am not so much in favor of making a program to humor the indifferent fellow who never goes away from his own local pasture, and most certainly doubt that the interests of the really progressive man ought to be made secondary to the indifferent one.

Surgeons for years have monopolized county society programs, certainly not entirely of their own initiative, because physicians have wanted to know about surgery, but because the younger member is attracted by some spectacular feat in surgery and papers that deal with the unusual case or an elaborate description of surgical technic. It is questionable whether he profits more from that sort of paper than he would from a review of the conditions attendant upon the common cases that come to the surgeon in the hospital.

Medicine is equally as culpable when some theorist, we will say on blood chemistry, speaks in terms that scarcely 1 physician in 50 understands, or listening in to a dissertation on an endocrine imbalance which makes people thin or awakens a biologic urge, furthers the reporting of a case of an extremely rare biologic phenomenon of human identical triplets of the type known as monozygotic. The average physician, particularly of the rural districts, the graduate of 15 or 20 years ago, realizing some of his shortcomings, is hungry for knowledge and benefits most from the free discussion arising from such subjects as tuberculosis, headaches, or asthma. This may not be within our province to discuss, and you may consider it irrelevant, but it is a matter that has been on my mind for some time.

It is as true of medical as it is in other reforms that there are some reformers who are in need of being reformed themselves. One of the means of removing the abuses which exist in our profession is to expose and attack them. While this should be done thoroughly and fearlessly, it should also be done with a candid and conservative spirit. Any exposure of these abuses which is made with the wrong spirit does harm, and one should be cautious in the manner in which he makes them. It may be impossible to prevent misapplications and misinterpretations on the part of the one exposed but this should be no reason for concealment of the existing abuses. These questions should be discussed repeatedly, not for the love of tattle but rather with the idea of renovation and improvement. I refer to those individuals who are constantly abusing county society privileges and the code of ethics, and particularly to those individuals who seek only their own personal gain rather than the patient's benefit and are without the requisite skill and experience as demonstrated by their poor and needless surgery. It seems to me, if surgery continues its present stride there will not be enough tonsils left in America to demonstrate to our students and an appendix will not feel at home in the human body. Now you may say that the matter of abatement of the mercen-

any surgeon is up to the hospital staffs but these very men are members of the county society.

Another matter that is vital to the issue: There must be some good reason for the Department of Labor, which supervises the operation of our compensation laws, changing its policy in reserving the right to analyze and scrutinize the bills rendered by physicians to the Insurance Companies. This no doubt means that physicians have not been quite conscientious in rendering bills, as to number of treatments, visits to patients, consultations, etc. The question arises as to what control county societies shall exercise over their members and what responsibility the society shall assume for their conduct. The county societies cannot afford to have such irregularities continue. Is it not the duty of county societies to start some sort of an investigation and purge their lists of such members as may be found guilty of such practices. It does not seem proper to pass this task on to the State Society. However it does seem to me that the State Society must sponsor legislation in the near future regulating the practice of major surgery and some of the specialties.

I now wish that I had said something more definite or constructive and more affirmative by the way of helping. I know of many physicians who are doing wonderful things that go unheralded and unsung, and I would have you know that I would like to say something to help the medical men and that I am not the chronic kicker you may think me, from hearing this desultory talk.

PRESIDENT SOMMER'S GREETING

Dr. Lathrope: We had planned to open this meeting by having the blessing asked by Dr. Sommer, President of the State Medical Society, but he was absent. I am very glad that he is now with us and we will hear from him.

Dr. George N. J. Sommer: Mr. Chairman and members of the Component Societies of the New Jersey Medical Society, it is a great pleasure for me, as your President, to welcome you to our historic city which, as you know, is one of the places where the fight for freedom of our country was settled. When I received the invitation to attend this meeting and it was said that I was to ask some sort of blessing over this gathering I was appalled. Religion naturally is a part of every man's make-up but I hardly knew in what terms this invocation should be stated. Nevertheless, it is always a pleasure to a presiding officer of an organization to meet the worth-while individuals of his constituency, and certainly in the hands of the Secretaries and Reporters of the State Society rests the fate of the State Society as a whole. It is largely through their industry and willingness to do things that the rank and file derive advantage from the meetings of the county societies. And in turn they can certainly help the programs of the State Society. The worth-while members of each county can bring the things they are interested in, and the things they have to offer, and the general program committee of the State Society can then learn whom they can call on to take an active part in the meetings.

I'm sorry I did not hear what Dr. Morrison and Dr. Donaldson had to say, but this idea of a closer association between the councillors of the various districts and the secretaries and reporters sounds very interesting and I believe much good may come of it. Certainly the men in the counties that surround Mercer hardly know the society members of the adjacent counties. Only the outstanding figures are known. It was my early good fortune to be elected an Honorary Member in Hunterdon County, and later also in Burlington County, so I

am well aware of the good work done in those counties and know those gentlemen. I believe that these meetings scheduled annually will be of great help not only to the members of the profession but to the State Society in its various activities. I am personally glad to see such a good attendance to-day. It speaks well for the interest you all have in this subject.

Chairman: I want to personally thank every one of you for coming here on such a bad day as this and for the very full attendance. I will ask the Secretary to call the roll to be sure that we have properly recorded everyone's name.—(*Roll Call.*)

There are 4 counties not represented. Last year the number was 7.

As to the time and place of meeting: last year we voted to meet on the first Wednesday of November, having the year previous tried a meeting in the middle of the winter.

Dr. Diverty: I move that the meeting next year be held in Trenton on the first Wednesday in November.

This was seconded and carried.

Report of the Nominating Committee, Dr. George T. Tracy, for President; Dr. D. F. Featherston, for Vice-President, and Dr. A. D. Hutchinson, for Secretary.

Motion was made by Dr. Shimer that the report of the Nominating Committee be received, the nominations closed and that the President cast a ballot for the officers named. This was seconded and the ballot cast by Dr. Lathrope.

Dr. Lathrope: In order that we may consider definite plans for district meetings, I wish to submit for your consideration the following resolutions:

It is believed that joint meetings, held at least once a year, of the county societies composing each Councillor District of the State Society will tend to promote better acquaintance and understanding between neighboring county societies, to strengthen and solidify the profession and so the state medical society, and to advance medical practice and economics.

Therefore be it Resolved: That this Conference undertake the organization of meetings in each Councillor District of the state during the next 6 months. To which end the following measures are hereby adopted:

(1) A committee shall be formed in each Councillor District consisting of the Secretaries and Reporters of the several County Societies in the district.

(2) A temporary chairman shall be appointed now for each district, who shall call the first meeting of his committee at the earliest convenient date and not later than December 31 of this year.

(3) The committee so met shall organize and select its permanent chairman and such other officers as it may desire; shall confer on ways and means, and take such measures as are requisite to bring about a meeting in their districts. It is suggested that they inform the President and Secretary of the State Society of their decisions and plans.

(4) It shall be the aim of each committee to hold a Councillor District meeting at some time between January 1 and March 31, 1931, and they shall arrange the scientific and business program (including organization) for that meeting according to the needs or desires of the several districts.

(5) Cooperation from the State Society shall be requested; but it is suggested that the State Society offer no official recognition nor seek control of these meetings in the first year.

(6) Each district shall arrange its own affairs for itself; time and place of meetings, number of sessions, programs, and the financing of their meeting.

Dr. Buzby: I move that the Resolution regarding the organization of councillor district meetings, as just presented, be adopted as outlined. This motion was seconded.

Chairman: I want to say in explanation that this was merely an outline intended to bring out discussion, and I hope that will be very full. The first question is, do you want to take some step toward organizing councillor district meetings? If you do, it seemed to me that this plan was lax enough so that each district could fit around it whatever its members wanted to do. I think ours is the best body in the state organization to start this movement. I thought committees might be formed consisting of the men here today from each district. Then a temporary chairman could be appointed whose duty it would be to call a meeting in his own district, and they could then organize to suit themselves. It seems to me that should be done within a certain length of time; that is, to get those meetings started before the end of the year. Try to bring about such a meeting in January, February or March in the districts which are going to try them.

Going down to Section 5 of the Resolution, I have suggested—you may think differently about this—that at the start it is better for each councillor district to function for itself and not have any direction or control by the State Society—advice, if they want it, but no control. Let each one work out its own problems independently and see what comes of it. Then, at the State Society Annual Meeting the matter can be reported and we can see what has developed in each of the districts. I have an idea that each of the districts may work out different plans and I purposely did not want to put in any set plan for the meetings.

Then the last section, that each district shall arrange its own affairs, including the financing of that first meeting.

Dr. Pinneo: There is a point not covered. Have you any suggestions upon it? Is the committee to be composed of only the secretary and reporter? And what are the meetings to be?

Dr. Lathrope: Whatever these various committees want to make them. If they want to make them meetings of officers, all right; if wide open meetings, all right. Anything that the district wants.

Dr. Pinneo: What relation does this organization bear to the approval of the county societies? Is it intended that this shall be discussed in the county society meetings in order to make these meetings a success?

Dr. Lathrope: I think that must be just as each councillor district committee decides. They are at perfect liberty, there is no compulsion about any part of this; it is not a matter of By-Laws but is entirely outside of the By-Laws and Constitution as yet, and I would be inclined to let each district councillor committee decide that for themselves.

Dr. Buzby: According to the outline as suggested there is no place allotted to the Councillor in the district?

Dr. Lathrope: No. I thought that should be as you gentlemen wish. I think the Councillor naturally would be brought into it in each district.

Dr. Snedecor: I think I am the only Councillor of the State Society present and possibly I might volunteer a word or two from the viewpoint of a

Councillor who does not yet know much about a Councillor's duties. I felt it was an honor to be made a Councillor last June, but several friends have told me that if they had known I did not have any gray hairs or a bald head they would not have elected me. I was elected for the Second Councillor District and upon looking up what a Councillor is supposed to do I learned that he has 2 duties; one to look after malpractice cases called to his attention in his district, and secondly, to make a yearly inspection of each county society within his district and report at an annual meeting of the state society. That seemed quite new to me because I had been secretary of the Bergen County Society for a couple of years and had never heard of a Councillor before. No one ever visited us and nothing was ever said about malpractice. I inquired further of some state society officers and they stated that I had an easy job, there wasn't anything especially for me to do but go around and visit. In the light of this present meeting it seems to me that the Councillors of the State Society might very well be brought in because, as I see it, there is a group of 5 men who may very properly function and at present haven't anything to do. They do not visit very much. The serious part is pretty well taken care of by the malpractice insurance company. I think they should be taken in on these programs since it is the councillor districts that need some form of leadership, and here you have a state officer whose duty it is to supervise that district. I think some mention should be made in this program of a place for the councillor in each district. It might perhaps be better for him to call the official meeting unless you can get all the secretaries together and agree upon it. The councillor might very well take the lead in his own district. Furthermore, the councillor is allowed whatever expenses are necessary and I think the expenses might be certified by the councillor. I just bring this up for discussion, as to what part a councillor should have in these organizations. I am heartily in favor of it. I think we should certainly make up these councillor district organizations and have these meetings.

Chairman: Then perhaps Dr. Snedecor would make a motion to amend the first section so that it will read "A committee shall be formed in each councillor district consisting of the Secretaries and Reporters of the several county societies in the district and the Councillor of that district".

It was regularly moved and seconded that this amendment to the first section be made.

Dr. Shimer: Why not have the Secretary call the Councillors together and let them form the organization? I do not think we are doing it legally. I think it is up to them. What we are doing is only temporary until the State Society takes care of it.

Chairman: That comes under the second section. We are the ones who are interested in starting this organization. Now all this meeting is for is to start it, and we can't go outside to this and that and the other one who hasn't been at this meeting.

We are fortunate in having 1 Councillor here. He will be full of the idea, enthusiastic, and will go ahead and start it in his district. If you go back home and wait for your Councillor, who isn't familiar with this meeting, to start it we will still be debating it next year. If we start it here today you can then get your organization going in any way you like. This would be my idea about it.

Dr. Fuhrmann: Are we not as secretaries and reporters committing our societies to something that we do not know whether they will sanction

or not? I happen to come from a small society, in Hunterdon County, that has few in attendance at its meetings and I know I will have one beautiful job to sell this program to them. We have now succeeded in getting them to have meetings 4 times a year, and to put another meeting on them, if this program goes through, I fear will meet with disfavor.

Chairman: This movement is at present entirely outside of the state or the county society. If we wait for the state or the county societies to originate the thing and get it going I think we may wait a long time. But if we are interested enough to start it, I do not see any objection to starting it at this time and see what comes of it; then later throw it into the state and county organizations. If you can get a meeting of the committee in your district they can appeal to the county society for all the authorization they want. I don't think we have to do that in order to get a committee meeting in your district. This is only to start the committee meetings. Now let the committees function, each in its own district, according to the way you think they will get the most backing. Does that answer your objection, Dr. Shimer?

Dr. Shimer: No, it does not. It will take a long time to accomplish what you have in mind. My heart and soul are right with you, but I do think the Secretary should get the Councillors together and let them appoint their own chairman of their particular committee.

Chairman: You see this doesn't come from the State Society.

Dr. Shimer: That is my objection, that we are not doing it legally.

Chairman: Try it out, and then get legal sanction of the plan if it is worth-while. We are not doing anything here that is necessarily fixed. All that we are arranging for is some committee meetings.

Dr. Tracy: As to the question of legality, what would you think of having Dr. Hutchinson, the Secretary, send out a copy of this prospectus to each Councillor in the state? It really is not a question of legality to get something of this kind started.

Chairman: If you get this committee together and will invite the Councillor to its first meeting you will have his approval, and you have taken the initiative. If we wait to save all the egos in the state we will wait a long time to get anywhere. I fail to see where we have to consider legality at all. If this is entirely independent of the state and county societies, it doesn't matter whether it is legal or not. You can secure that legality after it is on a working basis.

Dr. Reik: May I say a word about this? After a very successful meeting in the Fifth District, engineered by Dr. Crowe, the Journal carried an editorial requesting the other councillor districts to take notice; also in the Annual Report the Executive Secretary mentioned the matter, and since that time I have talked with some of the other Councillors about it. I know that Dr. Crowe was enthusiastic about it and I think he contemplates an arrangement for a meeting this year. Both Dr. Beling and Dr. Newcomb have spoken favorably of it and I believe intended to take it up in their districts.

As to the legality, I think a Councillor is only required to visit the county societies in his district once a year, plus the other duty that may come to him regarding legal contests. At the present time I know 3 of these Councillors are favorably inclined to this movement. If such a scheme as you have proposed here today is adopted by

this gathering and that action be reported to the Councillors in the form of a notice of action taken, accompanied by a request to the Councillors that they sponsor this movement in their respective districts, I think every one will respond. As to the legality, a President of the United States said a few years ago that he was not only bound to the laws of the country, but he was able to do anything that was not specifically forbidden. Now there is nothing in the State Society Constitution and By-Laws compelling one to do these things, neither is there anything forbidden as to how to arrange for councillor meetings. If the councillor were told that all of these secretaries and reporters gathered here today backed this movement, I think he would take measures to bring it about.

Dr. Pinneo: I think if we intend to make this thing go—and I take it from the sentiment expressed that we do—the point is very well taken. It should be started by those who are here and already interested, and it should not be postponed.

Chairman: I would like to ask the 2 Officers of the State Society present, Dr. Sommer and Dr. Morrison, if in their opinion there seems to be anything discourteous to a State Society in going about this thing and having it undertaken in this fashion?

Dr. Sommer: It seems to me a project which is only in its experimental stage. It does not insult my dignity, and I am glad to know, on the other hand, that the Secretaries and Reporters want to do something along this line. It only shows that you have a real, live interest in the welfare of the profession and, therefore, I am inclined favorably toward it. I think, as I know our local Councillor, Dr. Scammell, that he would certainly be agreeable and would do anything in his power to further this movement. I do not think that his dignity will be insulted. I know that he will be perfectly willing to cooperate in a movement of this kind and I feel that all of the other Councillors will undoubtedly be very glad to further this project.

Dr. Morrison: Representing the Officers and Trustees of the State Society, I think that we can assume that they are heartily in sympathy with this entire movement. They will be delighted to know that the Secretaries and Reporters are gathered here and that they intend to urge the Councillors to join them and to do all that is possible to further these interests.

Chairman: Section 3 is along the same line. Section 4 relates to the time of meeting. Regarding Section 5, it was my idea to ask the cooperation of the State Society, but not to ask for control until something has been accomplished. We do not know whether these meetings will be a success or not. If not, there is no use bothering the State Society about it. If we can say, here is something that is started; here is a 10 lb. baby, take it and nurse it, all good and well; but it might be a still-birth, you know.

Finally, Section 6: that each district shall arrange its own affairs. Are there any other amendments or discussions? Then I take it the resolution stands as printed on the slip with the amendment of Section 1 to include the Councillors.

The question was put before the House and the motion, previously made and seconded, regarding the resolution, carried.

Chairman: The Chair will ask Dr. Osmun to take the temporary chairmanship in the First District; Dr. Perlberg in the Second; Dr. Hutchinson in the Third; Dr. Tracy in the Fourth; and Dr. Marcus in the Fifth.

One suggestion came to me from Dr. Morrison's paper, that it might be well before we get away

from the business session of this meeting to see whether we care to go back to our county societies with the idea of bringing up in our programs during the coming year the question of a discussion of *state medicine*. Does any one care to make a motion so that it would be the sense of this group that state medicine should be discussed?

Dr. Gamon: I think that would come under the Public Relations Committee to decide and should be brought up through that committee.

Chairman: That would be recommended to the Committee.

Motion was made, seconded and carried, that some discussion of *state medicine* during the ensuing year be recommended, by the members present, to the respective county societies.

(Discussion Continued During Luncheon.)

Dr. Reik was called upon by the Chair for some remarks.

Dr. Reik: Before I read this prepared statement I want to say that it was not written in collusion with Dr. Morrison. I did not know that he was going to bring up the subject which he discussed so fully this morning but I was so full of it myself that I prepared these remarks, in the main relating to state medicine.

Address to County Society Secretaries and Reporters

Henry O. Reik, M.D.,
Atlantic City

Considering the fact that I am in such constant communication with all of you throughout the year, it seems scarcely necessary for me to speak here today; the available time might be better used by others. However, since you call upon me, let me take advantage of the opportunity to remind you of some things pertaining to your offices that are essential to the welfare of the medical profession of this state, and suggest a few new things for your consideration. A special reason for referring to some things that have been discussed and acted upon at previous meetings of this body is found in the fact that the October County Society Elections resulted in the choice of some new officers in several of the counties, so that we have invited here today 1 new county society secretary, 1 newly elected reporter, and 1 newly chosen to the double office of secretary and reporter; 3 members of this conference who may not be familiar with the proceedings of previous meetings.

Allow me to commence, then, by advising any of you who may desire information concerning the work that is being done or should be done by county medical societies, to read certain back numbers of the Journal. For instance, 2 sessions of the Tristate Medical Conference have been devoted to consideration of the county medical society and its functions, and the full proceedings relating thereto were recorded in our Journal. An excellent paper by Dr. Joseph S. Lawrence, Executive Secretary of the New York State Medical Society, entitled "County Medical Society Opportunities", together with all the discussion thereupon, was published in the Journal of January 1929, page 64. Under the title of "Further Consideration of County Society Problems", a paper by the Executive Secretary of the Medical Society of New Jersey may be found in the Journal of April 1929, page 345; together with elaborate discussion by the representatives from the 3 states in the Tristate Medical Conference. In the Journal of March 1929, page 248, you will find an address

upon the "Development and Correlation of County Medical Society Work", together with discussion by members of this Conference of Secretaries and Reporters at the meeting held in January of that year. Finally, in the Journal of December 1929, page 876, is an address delivered here last November by Dr. Ross, then President-Elect of the New York State Medical Society, which dealt largely with the relations of county medical societies to public affairs.

I would respectfully recommend that newly elected secretaries and reporters familiarize themselves with these articles, and that some of those who have been engaged in county society work previously may profit by re-reading of those records. All of us need to be reminded from time to time, or need to refresh our memories, with reference to details of work that cover such an immense field as that in which county society officers work. There are a number of suggestions in the articles referred to that have not yet been exhausted by any of our county societies.

Among the unfinished tasks is that of *publicity*, and under that heading we have particularly to consider education of the public with regard to medical matters. I would again call your attention to the necessity for making use of all available facilities in your respective counties. Atlantic, Bergen and Monmouth Counties have set examples worthy of your attention, at least. It is not necessary that the other county organizations shall slavishly follow the same procedures, but you will find it not altogether uninteresting to consider what has been done in the counties named, as a prelude to any plans you may intend to put into effect. In the simplest terms, their work has consisted in newspaper and radio publicity. Essex and Hudson counties have done some similar work but neither has made anything like full use of its opportunities. Not all counties have radio stations at hand, but you all have newspapers and there is no county society that cannot make better use of the public press than it has in the past. As bearing upon this question, permit me to quote from an address by Dr. F. J. Gaenslen, delivered at a Conference of County Society Secretaries in the state of Wisconsin. He said:

"In what form should communications, concerning public health, reach the public? I should say that one form might well be a résumé of a discussion at the county society carefully prepared by a publicity committee, stressing points of general interest and particularly such as have a bearing from the standpoint of preventive medicine. Early signs of heart disease, or of Bright's disease, the causes of these conditions and the methods of prevention would make acceptable copy. There are probably few county meetings which would not offer some opportunity for press reports carrying a lesson in preventive medicine.

A second means of extending the influence of the county society may be the holding of one public meeting a year, at which some subject may be discussed, like cancer, heart disease, the prevention of contagion, quarantine regulations, things of more or less public interest. The public is anxious to be in close touch with what we are doing and it seems to me that the people are entirely correct in that desire.

A third point would be an annual or semi-annual analysis of the health situation of the particular community, and this would show whether or not there were any special features about the health of that community that required investigation. Is there typhoid there which would have a bearing on the water supply? Have there been cases of surgical tuberculosis which might be

traced to the milk supply? Has there been group contagion which might mean laxity in the carrying out of quarantine measures? All of those things are of extreme importance and have important bearing on preventive medicine and on general health so that they would be matters of a good deal of interest.

These reports could go out more or less regularly. Then I think it would be well to have a comparison of the local health reports with those of the state as a whole. If your statistics are not as favorable as they are for the state as a whole, there must be some special reason for it. It may be that in this manner one could stimulate civic pride and use this as a lever in promoting health activity to increased efficiency."

Now, with reference to the scientific aspect of your county society programs, I have but one subject even to hint at; are you making use of, or do you care to use, moving pictures for entertainment or instruction? You are possibly aware of the fact that the American College of Surgeons has, with the collaboration of the Eastman Kodak Company, prepared a series of films and that these may be rented for exhibition at your meetings. We have a list of such films in our office and will be glad to cooperate with you in arrangements for their showing. Furthermore, I would like to ask whether you would be interested in having the State Society procure or prepare any special film for your use by county societies? I ask this because we have at hand the necessary apparatus and would gladly consider suggestions for the making of pictures.

On a number of occasions, the Secretary of the State Medical Society, Dr. Morrison, has advised county societies to hold at least 1 meeting each year for consideration of economic problems. Very few of our county societies have so far followed his advice. I would, today, emphasize all that he has said to you upon that subject and urge you now to give his recommendation immediate consideration. Let me endeavor to show you how important this question has become.

In my position, as an Editor, compelled to read more or less carefully all of the State Medical Society Journals, and to read cursorily a considerable number of new books, magazines and newspapers during the year, in order to keep track of lay articles concerning the medical profession, I have been aware of the growing seriousness of complaints lodged against the profession and of the repeated threat of State Medicine supplanting our present individualistic system of practice. Some of you may have read messages that I have occasionally inserted into our Journal, bearing upon these questions. Familiar as I have been with these matters, however, even I was surprised upon my return from vacation last month to note the number of articles that had appeared since July and which had accumulated on my desk during my brief absence from the country. It appears to me highly important that I should direct your attention to this subject and request you to take a message back to your societies.

Those of you who attended the Annual Meeting of the State Society will recall the addresses delivered by our guests, Dr. Harry M. Hall, Ex-President of the West Virginia Medical Society, and Dr. L. B. McBrayer, Secretary of the North Carolina State Medical Society, minutely dissecting our present economic situation and proposing action to be taken by the organized profession. Those addresses, together with a paper which I read at the May meeting of the Hudson County Medical Society, will appear within a few days in the November issue of our Journal. I trust

each of you will read them *carefully* and *prayerfully* and that you will urge all the members of your respective county societies to do likewise.

A moment ago I referred to the Journals upon my desk accumulated during the summer months—Journals bearing the month imprints of July, August and September. If any of you be inclined to think that I am exaggerating the importance of considering State Medicine at this time, let me tell you that this topic was the principal theme of no less than 5 presidential addresses, 6 leading orations, and 3 special papers at state society meetings held since May 1; and, further that special attention has been given this topic through the publication of addresses, papers and editorial contributions by 12 other State Journals than our own, embracing such important state as California, Illinois, Indiana, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Hampshire, New York, Ohio and Pennsylvania. Some day I hope to find time to abstract those articles and to combine the important points thus discovered into a paper for the Journal. For the moment it might suffice to say that each and every one of the Journals mentioned looks upon this question of State Medicine as a *burning issue*—if I may on the day following election use that expression—but I shall ask your further indulgence for the purpose of quoting a few phrases from the most important of these articles:

"It is no extravagant statement to say that within 10 years we are going to have the equivalent of paternalistic or socialistic medicine and with it a decided lowering of the present economic position of the members of the American Medical profession in general, *unless some concerted action is taken* to stem the advance of this growing evil." (Editorial Indiana Journal, July 1930.)

The same Editor, in his Journal for September, said:

"Certainly the time is ripe for some sort of economic change in the methods employed by medical men in caring for the sick of their several communities. It is the haphazard manner in which medical practice is now carried on that has prompted laymen to suggest unification of medical service through State Medicine, or community clinics, under the management and control of philanthropic organizations. What is needed right now is more unification of the medical profession, and sympathetic cooperation of all medical men in settling the economic problems that confront us. This means doing away with selfishness, jealousies, and carping criticism which today keeps medical men in more than one community working at cross purposes. This is no time to procrastinate, for imperative action is required."

The California Journal, referring to the necessity for meetings to discuss economic problems, said:

"Matters of such importance can no longer be side-tracked to give consideration to allergic infantile colic or to the pathology of hay-fever."

In the New York State Medical Journal of July 15 is an address by Dr. M. L. Harris, President of the American Medical Association, delivered at the Annual Meeting of the New York State Society, which discusses many phases of this problem; and you all know how he has urged action by articles in the J. A. M. A. The July 1 issue of the same Journal contained an address by Dr. W. H. Ross, President of the New York State Medical Society, delivered before the Women's Medical Society of that state, directing attention to some of these problems. And, that State Society Journal, during the months of August and September, published a series of articles, describing in full

the action of the British Medical Association which, as perhaps you know, is now advocating extension of the present National Health Insurance Law so that it shall cover the *entire population* of England, Scotland and Wales.

A reprint from Clinical Medicine and Surgery, July 1930, of an article entitled "The Future of Medicine", by Dr. S. Adolphus Knopf, whom you know as a distinguished expert in tuberculosis work, contains the following statements: "One of the most important factors in medicine in the future will doubtless be the functioning of what might be termed State Medicine. * * * The beginning should be to have what is now the United States Public Health Service become the Federal Department of Health, with its chief officer having a seat in the President's Cabinet, as Secretary of Public Health. * * * To prevent, in the future of medical activities, the very serious and deplorable practice of incompetent persons undertaking to perform surgical operations, there should be, first, a regulation that none except Fellows of the American College of Surgeons, or those who have qualified as surgeons before a special examining board, shall be allowed to perform capital operations, or to call themselves surgeons, publicly or privately, so as to obtain cases to operate upon. Exceptions to this ruling, must, of course, be made for the general practitioner in emergency and accident cases demanding immediate surgical intervention."

I think I have said sufficient to indicate the serious character of the situation with which we have to deal and to justify my reporting to individual members of the State Society through you, its chosen local representatives, that we are confronted by conditions that demand prompt and careful consideration.

Let me close with a paragraph taken from the Ohio State Medical Journal for November, 1930, addressed to county society secretaries, by the same Dr. Hall to whose writings I have previously referred: "The job of secretary is not for a weakling. It should be refused by any man to whom it is handed if he feels that he is not made for some sacrifice and the inherent realization that he will never get credit for all he performs. To the selfish man who occupies a position for only what he can get out of it, we would advise against assuming a secretaryship. If there is no joy in the work for itself alone, then a man is miscast who assumes the rôle. But show us a good medical association of any kind, and particularly a county one, and with our eyes and ears closed we can wager heavily on the fact that behind a lot of its success is a good secretary."

Dr. Reik: I would like to add, regarding the Health Insurance Law in Great Britain, that I happened to be in England when that was instituted and learned afterward that physicians were not so bitterly opposed to that law as we were led by published reports to believe. I have been surprised to read from time to time in some of our medical journals that "the profession has been ruined by that law". I am told by English practitioners that the bill has not been such a horrible affair. It was fought by the profession for a time but if it were put to a vote of the British Medical Association today, whether they would hold to the law or go back to the old conditions, they would vote to hold to the present law. But, they do want something better than they have, and they have at last done what I think would have been the best thing to have done in the beginning, and what I think will be the best thing for us to do today in advance of any State Medicine Act being passed for us. The British Medical Association has pro-

posed that the Government shall extend the national health insurance law, which at the present time only covers 15,000,000 members of the population, to the entire population of the country, and in such form that it may embrace anything that may be necessary in preventive as well as curative medicine. There is a widespread misunderstanding in this country that the British law took away from the individual the right to choose his doctor. It did not. Under the present law the individual can choose his own physician. The physician is not, on the other hand, compelled to accept the patient. If he does not want to attend an individual or his family, he can decline and the Panel Board makes some other arrangement. Briefly, it is working smoothly. The doctors are now getting payment in many cases where they previously got nothing for their work. There is some abuse of the law, of course. It works very much like our Workman's Compensation Act. I suppose each of us could find something to criticize about that law in New Jersey, but on the whole the medical profession is certainly better off than it was prior to the passage of that law, when physicians had to do much work for which they received no pay.

Please do not think that I am recommending state medicine to you, not even the new Act recently put forth by the British Medical Association; *I am merely telling you some facts which I discovered this Summer.* The American medical profession has this situation now to confront—you will either correct the evils of medical practice as they exist or the people will do it for you. Now, what is the wise thing for us to do? Sit still, as they did in Great Britain, and let the legislature pass a Bill such as they have spent 19 years getting corrected; or, will we consider the situation and say to the state: "Here is a type of medicine that meets all the demands, *supplies all the good things* that are in your socialistic program but *avoids the evils*, and will satisfy the profession and the public. Take this under consideration, because you cannot satisfy the profession and the public unless you satisfy the profession." *We should determine whether or not we want to recommend some form of revision of medical practice or whether we intend to sit still and let the legislature do it for us.*

DISCUSSION

Dr. Lathrope, the Chairman, called on each representative present for a general discussion.

Dr. Marcus (Atlantic County): This is the first opportunity I have had of attending a gathering of the Secretaries and Reporters. There has been such an interesting array of facts presented today that I am at a loss to know what to discuss. There are several points I would like to bring up. One is a matter in which we all have a certain amount of complaint. Being the Secretary and Treasurer of a county society, we of course, have our bills for dues sent out immediately after the annual meeting occurs in October. We do not have any meetings in June, July, August and September. Our dues rose from \$12 to \$20 last year. There was much complaint at the time and many members stated that they would resign. However, I am very glad to say that there has been but 1 physician to resign and he was an individual who never attended any of the meetings nor took any active part any way. Out of 131 members, 4 still remain in the delinquent list. We have a system of sending out our bills immediately after the meeting in October, and continue to send them at monthly intervals. If the dues are not paid in January we are up against it. Since the state

society is the parent organization, I do not see any reason why the state society should not assume the obligation of corresponding with the delinquents. We do not wish individually to create a spirit of antagonism in a community of our size, but coming from the state society, as a form letter, collections might be better. I wrote to Dr. Morrison and he stated that it was up to the local society. However, I think the parent organization should help us out in these particular instances where the men persist in nonpayment of dues. If it is necessary to create an amendment to the Constitution and By-Laws, I move that it be done.

Dr. Morrison: During my second year of office incumbency I secured from the different county societies a list of 200 or more delinquents. I had a letter printed. I called attention of such members to the fact that some of the county societies carried lists of those whose dues were not paid and urged payment, but that did not avail. I received 2 of the nastiest letters I ever received. I tore up the rest of the printed copies and never sent out any more. This year, I am delivering an address to the county societies dealing with that question. It covers the progressive things that have been accomplished, for I have demonstrated to my satisfaction that every member listed should know what is being accomplished for him by the state society. I do not see how the State Society can assume any responsibility for the collection of dues.

Dr. Pinneo: We have been having some experience with the matter of delinquency. This last remark of Dr. Morrison's is briefly to the point, that the state society is not conversant with individual membership of the County Society. To be a member of the state society one must first be a member of his county society; therefore, it devolves upon the county society to collect bills for dues and be responsible for its membership. These figures suffice in our society to illustrate the delinquency of men who so shamefully neglect this duty and do not recognize that it is important. There were a number of men who paid immediately after publication of the official list this year, and many of them were well-meaning men. Many of the delinquents paid up after publication of the delinquent list.

This year we had a new feature. At the suggestion of the county president, we had a dinner at \$3 a ticket, supplemented somewhat by the county society's funds which they had hitherto put into a collation. There were 354 men who attended that dinner. The annual meeting is held the second Thursday in October. Within 10 days the Secretary must send a bill for the fiscal year's dues. On the first of December, to those who are delinquent he must send an additional statement. On January first the member is sent a second notice saying that he is delinquent, has no privileges and has not the recognition of the society, but that if his dues are paid before February first he will still be on the Official List. We are expecting great things from this. Our society is one that dates back to a past century when the county society was a sort of social organization and the collection of dues was a secondary consideration, but now the county society must be a business organization.

Dr. Irvin (Atlantic County): I talked to our President yesterday to see whether he had any matters to bring up. There is only one thing on which I thought I might get some advice from this assembly and that is that in the summer, my county being a Summer resort, we find our population increases and following that come a great

many Philadelphia doctors to spend a part or all of the Summer. Probably some of those doctors have taken out a New Jersey license but that has not been investigated. I think quite a few would be found practicing here without a license. Of course, we realize that when a Philadelphian comes down and becomes sick, and her Philadelphia doctor is there, it would be inhuman to prevent that patient from having her own doctor. Yet, I think in certain instances those people recommend their Philadelphia doctors to their friends and eventually they work up a good deal of local practice. Camden County might have the same problem. The local men are beginning to talk about it but we have never done anything.

I want to ask a question about state medicine, and that is—in working out the system in England what relation the cults have to the practice of State Medicine?

Dr. Morrison: Under the law there isn't any such thing.

Dr. Reik: Only regular physicians are permitted on the Panel.

Dr. Irvin: That is one factor that would have to be reckoned with in this country because the cults are so strong. When that matter is taken up in the county society it would perhaps make it interesting to the membership to have a proponent of state medicine and an opponent of it stage a debate, to start the ball rolling.

Dr. Reik: As to the question of cults, there are osteopaths; particularly, practicing both in London and in Paris. I asked how these men could practice when the laws were so strict as to who should be allowed to register. The answer was that they have no legal right to practice. When I asked—why do you allow them to practice—the reply was that "it is not worth the time, money and trouble to prosecute them *because they practice on nobody but Americans.*"

Dr. Morrison: In any system of state medicine an individual is not compelled by the Government to accept medical service. If he wants to pay for it he can go to anybody he likes; and if he wants a cultist to take care of him and his family, and will pay the bill, he can have it so.

Dr. Lathrope: In partial answer to Dr. Irvin's question, as I understand the State Medical Practice Act, a physician coming into the state, so long as he doesn't hang out a shingle or have an office where he meets patients, has a perfect right to treat patients who call him, and to collect a fee therefor, but if he has a stated place for meeting patients, for being available to patients, then he comes under the Medical Practice Act. Another community which probably has the same problem as Atlantic City, in that regard, is Asbury Park. We might hear from Dr. Featherston about that.

Dr. Featherston (Monmouth County): This is our first official appearance with this organization. We feel that we should be represented because you were so kind to us last year at the State meeting. The next State meeting will be held at Asbury Park and we hope to outdo anything that Atlantic City has ever done.

With regard to the question of Summer practice, it does bother us considerably but unfortunately the men who come in upon us are not men from *outside* the state. They are mostly men from Essex who come down for a vacation which is rather extended, not the usual 2 or 3 week's vacation, but they move their families into Monmouth County, occupy a cottage and hang out a shingle. They do have the same privilege to practice medicine in New Jersey that we have, and we have no legal redress. We do not think

it is fair but as yet we have done nothing about it, and I don't think we will do anything. We will just have to grin and bear it and if they are able to work up any practice that is our hard luck.

I have very much enjoyed this meeting and feel sure that the organization of Councillor District meetings will be a fine thing so that the men from the different counties may know one another better, and I think that we should without very much difficulty work these problems out.

Dr. Van Oehson (Monmouth County): There is only one point I would like to speak about and that is, Dr. Tracy spoke of the men in his county being in favor of having their program a county affair. We find that we have better attendance when we have men from outside. Perhaps the reason for that is that we have 2 hospitals and the men meet one another every day and know their reactions upon most subjects. I would like to know what the opinion of other Secretaries is in that regard.

Dr. Diverty (Gloucester County): I am sure it gives me great pleasure to be here. I practice a little bit but I go around a good deal. Last week I had the pleasure of meeting Dr. Morrison and Dr. Reik at the Cape May County meeting and last evening I had the pleasure of being a delegate to Camden, and there we had a most excellent paper which seemed to prove that we will soon have a remedy for cancer. I would say to the younger members here that you will never make a mistake in attending all the medical society meetings you possibly can. I find it the biggest thing in my life to rub up against other doctors.

We talk about state medicine. It was my pleasure a few years ago to be in the Yukon. I stopped off at White Horse and ran across a doctor who is employed by the state to take care of all the people in that neighborhood. He was the only doctor there and was very hungry to see another. He told me his way of doing things. The state pays him \$5000 a year. They have a hospital and furnish him a house to live in. He doesn't pay for anything. And yet he said he was hungry to get away from there and wanted to go down to the States. I said: "Well, you are a man of 45, getting \$5000 practically clear. It would take you a good while to work up such a practice in the States. I think you had better stay here." The last I heard from him he was still there.

Last year it was my privilege to go over into Leningrad and Moscow. The situation of the doctors there is simply appalling. They are employed by the state and they cannot practice wherever they like. They generally work in a central hospital and have the sick brought there. They believe most emphatically in birth control. Every doctor employed must perform abortions, under certain conditions, and any woman can have this done by filling out certain blanks. We had a doctor with us from New York who could speak their language and we learned that the conditions there are simply appalling. As you know, in Russia, if a man makes more than it is necessary for him to live on he has to turn in the balance to the state. We had a young lady guide who spoke English very well. She told us that when she was 6 months old she was brought over to Los Angeles and remained there until she was 17, when her father died and she went back to Russia and married. Both she and her husband work. She said they both turned over to the state all money over what they actually needed to live on, that they were pledged to do that for 5 years; as the present plan is a matter of experiment for 5 years. They are allowed only 1 pair of shoes a year. The

bread line is a block and a half long. One may have to wait his turn to get enough to hold body and soul together. Imagine a doctor living in that section of the world under control of the state. He is compelled to do just as the state tells him, and he is allowed only enough to live on. It isn't necessary for any man to have brains over there for everybody gets consideration alike, so the doctor does not fare any better than any other person.

I would like to say, respecting our local society, that some time ago we wanted to make a report of some valuable statistics. I have been on the Program Committee for 20 years, perhaps too long, but we got the idea that we wanted a stenographer, so we employed an instructor in our schools who taught this subject. We thought we had a wonderful stenographer. The Editor sent the report back to us and advised us to get a *medical stenographer* for reporter. However, the members do not seem willing to pay for a medical stenographer.

We have our meetings in the evening and usually have a speaker from out of town. We think this is very helpful to us. Last month we had a gentleman who spoke upon the heart and hardening of the arteries. We will have another gentleman this month who will speak on certain conditions of the heart. We find this preferable to home talent and our members attend if we give them something worth listening to. But you must have a good program.

I want to say that Dr. Morrison's paper explaining what becomes of the money paid in as dues was very helpful to us. Of course, we have some members who complain that the dues are too high. They will spend \$25 a day on a dinner to their friends and are not willing to contribute that sum to the medical society for a whole year.

Dr. Curry (Morris County): I think Morris County has been very ably represented by our President at this meeting and I do not know that it is necessary for me, as a Reporter, to make any remarks. Dr. Tracy brought up the matter of having speakers from our own societies. Morris County has one of the oldest societies in the state, and we had gotten into more or less of a rut. A few years ago we prevailed on Dr. Lathrope to take the secretaryship. From that time on we have had a wonderful growth and wonderful interest in society matters. Dr. Lathrope rejuvenated the entire society; and a society is what the Secretary makes it. Our society is greatly the result of the interest that Dr. Lathrope has taken in it. Several of the state society officers have visited us and know that what I say is true. We had been accustomed to having an outside speaker, in an effort to live up to the law of having 4 meetings a year. Those meetings were very poorly attended. After Dr. Lathrope went in as secretary, one of the first things we established was having a business session before opening the regular meetings. The Executive Committee was composed of the officers and 2 extra members from the society, and it considered the various business matters. From that, we began laying out the program for the year, not only for the regular society meetings but for special meetings, of which we now usually have 3 or 4 a year. We made it a rule that at least 1 of the regular meetings, and often 1 of the special meetings, should be conducted by members of the society. At Dr. Lathrope's suggestion we started having, instead of a paper by 2 members, a symposium composed of 3 or 4 short papers, and then discussion. It has been extremely interesting and I can say very

frankly that some of the best meetings we have had in our county have been those where we had papers by our own members.

Regarding the question that Dr. Marcus raised, I am glad to know that we in Morris County are not only abreast but perhaps a little ahead of some of our other county societies. Again thanking our Secretary, we started some time ago having our regular meetings start the last of September and bills are sent out right after that meeting. The men are notified that if the bills are not paid by January first they will be suspended from the county society and lose membership in the State Society and in the American Medical Association. We have since had very little trouble. Only 1 or 2 men had to be suspended and they were glad to come in again and pay up their back dues and also pay in advance. I believe that prior to the suspension there is sent a registered letter to the delinquent stating that on and after a certain date he will be suspended. We have absolutely no trouble about that problem now.

There is one other matter that I would like to bring up: A Reporter is not a mind reader and it is practically impossible to get information from the other members of the society about what is going on outside of the regular meetings. He cannot make a report of it unless he happens to know about it. If the other members would take a little more interest in bringing matters to the attention of the Reporter it would certainly help a great deal.

Dr. Pinneo (Essex County): I am aware I have already transgressed too much upon your time but I would like to raise this question, which we discussed last year, and would like to make a suggestion for further action: This concerns a resolution of this organization made a year ago that there be in the By-Laws and Constitution an amendment providing that the Reporter be a member of the House of Delegates from each County Society. The State Society recognizes representation of the counties as counties, and not according to the relative size of the counties as in the National Government. It would have the advantage of adding only 21 to the House of Delegates and would give to each county an extra Delegate. It also has other advantages which we circularized last year. It is perhaps not wise in a new Constitution and By-Laws to too hastily change it. That is why it was not pushed to a conclusion last June in the House of Delegates.

I move that we reiterate support of the resolution of a year ago in favor of this, but in order to strengthen the working of the new Constitution and By-Laws that we do not push it this year but that we do so the following year. This gives us time to consider it. And I would suggest that this matter be put before your county societies again with the understanding that we do not expect to push it this next June but with the idea of bringing it actively before the state society the year after this.

This motion was seconded and adopted.

Dr. Pinneo: I would like to read you a letter I received just before leaving home, giving the results of a negotiation with the company carrying our Health and Accident Insurance. (see page 996.) You all know that the impression is that the insurance companies are eager to stand upon technicalities, whether large or small. You may know also that our Health and Accident policy is absolutely unique; there is no other contract like it. We negotiated this contract to apply to doctors of New Jersey and it provides for partial disability on

account of illness, which is a thing the insurance companies fight shy of. In operation, our plan has been very successful and some members have received a better settlement than could have been effected individually. This is largely due to a medical committee of your society being able to effect such contract. The Health and Accident policy has a phrase, "house-confining," because in interpreting an illness as partial, there being an initial disability or a partial disability, you can see that in many cases it is very difficult to say how much disability there is and how long it lasts. This matter of partial disability has been a source of negotiation with the company and we have succeeded now in getting a modification of our policy so that the condition concerning partial disability will allow an indemnity to be paid for 6 weeks, and also takes care of that disability which is *not house-confining* and where the man may be convalescent. In 1 case, for example, a physician was operated upon for goiter and got indemnity for his total disability and then went to a summer resort, was not attended by any doctor, and yet we got him an allowance for that time also, by virtue of our negotiation. This will, beginning in November, allow a partial disability for 6 weeks, not house-confining, and without any increase of premium.

Dr. Osmon (Warren County): Our society was organized in 1826, and is, therefore, one of the old societies. We have always depended upon the Secretaries to arrange the programs and do most of the work. This year we adopted almost the identical scheme that Morris County has and I think it will work out very well. We haven't a very large membership but I think we are getting along as well as any society of this size. We have many men in the county who will not join. They say they do not believe in a medical society. Men like that would be greatly benefitted, of course, by becoming members but I don't believe they would be of very much use to us if they did come in. At present we are hoping to get several new members.

We have been very much interested in this meeting. I am, personally, a medical society man and this has been a very interesting gathering to me. I also enjoyed very much Dr. Morrison's talk and the address by Dr. Donaldson.

Dr. Shirrefs (Union County): Once upon a time Jack Dempsey was invited to a banquet and after it was over he was called on for a speech. He said, "I can't make a speech but I can lick any man in this room". I can't make a speech and I'm afraid I can't fulfill the other part of the promise.

I felt very blue this morning because every man I voted for yesterday got licked. Then again, later on, I felt blue because when Dr. Sommer came in I expected him to pray for us, as the program suggested, but he looked us over and evidently decided to pray for our patients.

It is the duty of the Reporter to get news. Now early in the summer a big piece of news broke and not one of the 21 Reporters gave it any show. One of our best loved doctors went off and got married, and there wasn't a word in the Journal about it. I think we should give Dr. Irvin or Dr. Marcus a word of censure for having fallen down on his job.

Dr. Horre (Union County): I don't think we have any very serious problems in Union County. I have heard the dues mentioned today. Our dues are \$15 and of course that goes to the State Society. We had quite a discussion at one time

down there, one of the members wanting to know where his dues went. Dr. Morrison kindly came to our annual meeting and I'm sure after his paper was read it was cleared up as to where the money went. Apparently \$15 is just a drop in the bucket to what some other societies pay in dues.

Regarding the number of meetings held each year, in Union we have 4. We are geographically situated so that we should have more. This being the county seat, we have 3 local hospitals, and in Elizabeth we have a Clinical Society. That society is over 50 years old. Dr. Buzby tells me of a society in Camden that has become amalgamated with the county society. The different cities around Elizabeth also have their hospitals and each district has a Clinical Society similar to the one at the General Hospital. These men do not seem to feel that they would like to give up their individual societies. In Elizabeth they will not do so. Two years ago we had a resolution put before the society to increase the number of monthly meetings and this was badly defeated. I think all the members in Union County are loyal to the society and show their loyalty by coming out 4 times a year to the meetings. I would like to know whether you think our 4 meetings a year should be increased or not. Locally the men do not feel that they should.

Dr. Snedecor (Bergen County): I do not want to prolong the discussion. I think Bergen County would rather listen this year.

Dr. Perlberg (Hudson County): We are confronted more or less with the same matters that concern all the county societies. With reference to our program, we have been in the habit for the last couple of years of having outside men and that was objected to by some of the members who felt that we should encourage our local men. Under the plan of our new President, Dr. Cassidy, we are having a series of symposiums this year and I believe that will be very successful. The local men know one another so well that they would not be content to sit and listen to one man an entire evening, but in allotting one subject to a number of men it will make it more interesting, not only to the men but to the society at large.

We did discuss only last week the idea of forming a Tri-County Society, associating with Bergen and possibly Essex, if they were willing and mutually interested, to handle such situations as the economic problems which to us are quite serious owing to our local situation in close proximity to New York. I now find that the Councillor resolution offered this morning covers this proposition beautifully and Hudson County is surely behind this move and will do everything possible to help it.

With reference to the dues, we follow the same plan as outlined by Dr. Pinneo with the exception that on the first of the year each member is notified that he is suspended—with the result that we get their dues immediately. We put our Membership Committee to work, the Chairman is given the list of delinquents and these are apportioned among his Committee to personally visit the delinquents. Through that committee we have been able to keep within the society a great many men. The main objection is the amount of dues. Dr. Morrison did a great deal for us when he told the assembly just where that money goes.

Dr. Waters (Hudson County): As I was one of the rather vigorous opponents of this year's procedure in our local county society, I think I should

voice my opinion on the change of character of programs. Last year we had outside speakers and we probably had the best attendance that we have ever had at our county meetings. Personally, I attend 3 hospital meetings each month and 3 local clinical society meetings and I am pretty well fed up on what has been called "home talent." We like to hear other things in the county society. This year there is a sort of experimental program on, having symposiums at some of the meetings and outside speakers at others.

I have one thing in mind which may be a contribution of worth. As we are across the river from New York, many of the people who would be desirable patients go either to New York men in private practice or to Pay Clinics and the Life Extension Institute. We have given some thought as to how we might combat that problem, and I have a plan which might be feasible and which I intend to present to our county society—that is adoption of a form of procedure for a periodic physical examination, giving a list of minimum requirements for the doctors to meet, at a standard fee. In conjunction with this we might publish in the local papers a list of the accredited members of the county society and with an asterisk indicating those who are willing to give these routine examinations at that figure; in that way not stipulating what a man may charge but indicating those members who are willing to give that examination at a standard fee. This will have a two-fold purpose. It will acquaint the public with the local doctors who belong to the county society and will stimulate nonmembers to join the county society; because you know that if there is any ethical advertising those doctors will want it. By publishing with this list the type of examination to be given the public will know what to expect in the way of a medical examination and the doctor will of necessity give an adequate physical examination. This plan will increase confidence of the public in the doctors, as individuals and as a group, and will also certainly increase the county society's prestige, and I think will adequately meet the challenge of the pay clinics, the Life Extension Institute and similarly controlled groups. Now, I am aware, of course, that such a plan is open to some objections but I have not been able as yet to find any in my own mind which could possibly meet the rather obvious advantages that would accrue to us as individuals and to the county society members as a group. I think it is perfectly workable and would most likely increase the number of members in the county society; and it could all be done ethically. I think if we can in that way give to the public something of real value they will look to us for it and not to privately owned clinics which are beginning to spring up like mushrooms. In Jersey City there is such a clinic owned by a druggist, a man who, even if born in this country, has not learned to speak our language properly. He charges less at this pay clinic than the doctor does at his office. I have first hand information from a man who was asked to go down there and partake of the clinic. He maintains that he is reaching a class of people who do not go to doctors and who do go to free clinics. In other words, he is saving for himself a class of people who now go to the free clinics and you can imagine the type of men he has serving as doctors. Some of the employed doctors left when they found out what sort of a place it really was.

If we can offer the public something of real value in the way of a physical examination, why should they go to the Life Extension Institute? I

went over there myself to find out just what they give the people that you and I cannot give them and I was sadly disillusioned. I expected much more than I got, and I think you would feel as I did about it. I resorted to a little subterfuge; as to my occupation, I said I did clerical work and sat around a good deal; which was true. I wanted my examination not to be prejudiced by the man knowing I was a practicing physician. Any doctor who wants to take the time can give a far better examination than they did.

Dr. Buzby (Camden County): As to the nature of our meetings, last year we picked up here, I think from Dr. Lathrope, a suggestion about case reports, having a night set aside for that purpose, and we put that through once in Camden County. It was an extremely well attended meeting; about 60% of the membership attended. We thought then we might have a purely clinical night at one of our hospitals and, surprising as it may be, there were 85 out of our 120 members present. It has been proved in Camden County that we have far better attendance at our meetings when we have our own men participating.

Another question has come up: The men who are dropped for nonpayment of dues. Last night it was noted that several members have been carried for 3 or 4 years with nonpayment of dues. Some men join the county society, never attend a meeting, in order to take advantage of the reduced insurance rates. They get these insurance rates, attend some meetings and then no longer pay their dues. The insurance does not get dropped, however. Three members were dropped last night who have not paid any dues since 1926.

Question: Aren't they carried by your Treasurer?

Dr. Buzby: Yes. They are not reported to the society.

Dr. Morrison: No man is a member of the State Society unless his dues are paid.

Dr. Buzby: The question has been raised regarding the practice of other doctors in our locality. I do not believe there are any men in Philadelphia who practice medicine in Camden except some Italians who do some practice in the poorer districts of the town.

Last year our historian gathered together data regarding the individual members of the Camden County Society. He devised a form which he sent out to the members and received about 80% responses. Then he took 5% more of the members who had not responded and jotted down from his own knowledge and what he could gather from the A. M. A. their individual histories. This takes about a third of a page in a 4 x 7 booklet, and that has been incorporated in the revised Constitution and By-Laws to be sent out to each member of the County Society, which makes a very valuable document for posterity.

Then we changed our form of application blank for admission to the society in order to have it contain all this information. After that is acted upon by the censors it is then turned over to the historian as a file and will be issued later as a supplement.

Dr. Perlberg: Concerning men who continue with insurance policies when they do not pay their society dues, I have this arrangement: each year I send our broker a list of the men who are not in good standing and they are not to receive their policies. I told him that if he wrote such policies we would stop our insurance with his company. He then notifies the applicant and it usually results in prompt payment of the dues.

Dr. Gamon (Camden County): I have nothing to add except to say that Dr. Buzby's action has helped to make our meetings successful because we have systematized our work. The business meeting does not interfere with the programs and that has cleared up a lot of discussion. Ten days before a regular meeting the Secretary sends out a little sheet which gives the program, the scientific discussion and also a little news item of interest to the members, all of which gives it a personal touch. I can also say that during this past year we have had better attendance than ever before in the Camden County Society.

Dr. Tracy (Burlington County): I gather from the discussion that a great many do not distinguish between the county society meetings, which are supposed to be scientific, and the hospital clinical meetings. Since our local county hospital was started, in the last 3 years, I have noticed that there has been a desire on the part of some of the men to reject most of the reports of the hospital staff meetings. I still feel that there is a field for work in developing the members of the county society because there are other matters besides clinical things to be discussed. As I look over the Minutes of our meetings 20 years ago, they were what might be termed just general experience meetings, but they were most interesting and instructive. I feel that there is a great field for improvement in the material that we have in our county societies.

Dr. Fuhrmann (Hunterdon County): Historically, I think Hunterdon County is the oldest society in the state. Just recently, I unearthed an old history and I found the society was organized when Hunterdon County was embraced by 3 other counties and then those individual societies split off.

I think there is no question about the Councillor District meetings, as outlined by our President, being accepted.

The number of times to meet yearly is a great problem. We have about 25 members scattered over 35 to 45 square miles and it is an effort to get them together. Some years ago we met only twice a year and had an average of 8 or 10 men present. We now meet 4 times a year and there are usually about 8 or 10 in attendance.

In regard to programs, we have tried outside essayists and now that Dr. Lathrope is an Honorary Member of our society we shall always hope for something from him. I feel, with Dr. Tracy, that the county society should be absolutely divorced from the hospital staff meetings. Injecting into a county society meeting hospital activities as such should not have very great weight and I think there should be a scientific program or a round table discussion. We can at most any time make the sparks fly and get a discussion over some very trivial matter, and the arguments get very warm sometimes. However, we soon cool down as we usually adjourn for dinner after the meeting is over.

I have purposely left speaking of Dr. Morrison's paper until the last. It seems, from listening to most of the other members who have spoken today, that the chief cause for complaint arises from free and pay clinics, the Life Extension Institute, etc. Everybody seems to have something of that kind that is bothering him. That being a very prevalent custom, I believe most of the evils of that nature would be eradicated by state medicine, so-called. Dr. Morrison and Dr. Reik are both more conversant with such matters in various states of this country, and in other countries, and according to

the trend of the times I feel that a motion should be made that it is the sense of this group that the State Society should at its next annual meeting appoint a committee to investigate this matter. Let our State Society gather first-hand information, and all the data possible, so that it can be brought forward when the time is ripe. Instead of waiting, as we have in the past, to work out these difficulties after a bill is introduced in the Legislature and then getting together propaganda to off-set it, we will have our program outlined when it breaks and be prepared when the state says we must do something.

I will offer that as a motion now, that the sense of this meeting be that we recommend that the State Society at its next annual meeting appoint a committee to investigate the matter of state medicine, or organized practice, and report at the next meeting or in 2 years, so that we will have a committee at work to bring the matter to a head when the necessity arises.

This motion was duly seconded and carried.

Dr. Woodhouse (Ocean County): I have come to the conclusion that we in Ocean have about the tightest little county medical society in existence. We used to have our own scientific meeting, and have also had men from outside the state, but we have come to the conclusion that we get best results by promoting a fairly good fellowship between the members themselves. Consequently, when we start a meeting we have a dinner and usually this produces a very good humor. We have a condition in our society where practically every member is also a member of the hospital staff, consequently our hospital is run almost in conjunction with the medical society.

In connection with the various things we have received from other counties, I would like to thank Bergen County, Atlantic County, Burlington, Essex and especially Dr. Pinneo, all of whom have sent us invitations to visit their counties. We have not as yet received any from Mercer County. We would like to hear from them occasionally.

We expect at our next meeting to bring up the question of membership in our society. Of course, we find the increased dues one of our great problems. We have now, I think, 17 members and every man who is practicing medicine in Ocean County is a member of our society.

We would also like to thank Dr. Morrison and Dr. Reik whom we have heard several times, and we appreciate their efforts to keep our county society on the job.

Dr. Lawrence (Ocean County): I have very little to add. I think the day will come when we will all be interested in state medicine and I do hope when that day comes, if there is some control of practice the fees fixed will be fixed with the idea of being changed from time to time in the future. Some of us older men can remember when a dollar used to buy a great deal more than it does now. I know when I first started to practice medicine in Connecticut I was very willing to do life insurance examinations for \$5 each. At present the average examination is 3 times as complex for the same \$5 fee, which I never did consider fair. Some time ago I attended a meeting of the County Welfare Committee, of which I was a member, and some of the insurance companies were represented. There we were urged to fix our fees on accident work. I believe it was thrown overboard although some men spoke in favor of it. The fee as fixed by the state of New York is not sufficient sometimes for the work that has to be done, especially in our hospitals.

So that when this question comes up, whatever committee represents the State Society I think should go into that matter very carefully. I do not think a fee fixed today necessarily means the proper fee 20 years from now, and that is what I am afraid will be put on the medical profession. Personally, I am not so much in favor of state medicine. If all the other professions were to be put on the same basis, if the lawyer could also be pinned down to a fixed fee, all well and good, but I think that will never be done.

Dr. Hutchinson (Mercer County): Mercer has been very well represented I believe at times and very fortunate in the election of its Presidents and Treasurers. The President elects or appoints the Program Committee, which from time to time has shown efficiency in procuring speakers from outside as well as from our own membership. The attendance has been practically the same regardless of whether we have an outside man or one from our own membership, and considerable enthusiasm and discussion has arisen at all times. Along that line we had a very enjoyable meeting on October 8 in one of the hospitals in this city to which the State Health Department had invited the Burlington County Society. We had over 100 members present, and a program which was extremely interesting.

We have a Membership Committee which is exceedingly efficient and precise. Precision seems to be their motto in passing judgment on applicants for membership. Our Treasurer has long been known for his extreme decisions about carrying men who have not paid their dues. If he doesn't receive a check by a certain date he calls them on the phone and gives them one last chance. So far we have been 100% paid up.

We have a Public Relations Committee which at present is working on an investigation of clinics as conducted in the City of Trenton. There have been a number of complaints to the effect that matters are not as they should be.

I want to state my pleasure in being associated with our retiring President, Dr. Lathrope. I think this organization has been placed on an extremely sound footing, through his efforts, and we are deeply indebted to him and to the Vice-President. I also want to commend the Nominating Committee for their choice of a President and Vice-President whom I believe will ably fill the chairs our present officers are leaving. I am very much pleased to have had the honor of serving with Dr. Lathrope during the early meetings of the organization of this conference.

Dr. Ward (Morris County): I am only a few days old as a Secretary. I would like to ask for a copy of the Minutes of this meeting.

Dr. Reik: They will be published in full in the December Journal.

Dr. Tracy: The thought has just occurred to me—might it not be well to have each Secretary of a County Society put the other Secretaries on his mailing list so that they will know what programs are being presented? I make the motion that each county secretary be requested to place on his mailing list all of the other secretaries of county societies. (This motion was seconded and carried.)

Dr. Lathrope: I would like to inject one more word. There has been a lot of talk this afternoon about the line of programs. What has been on my mind for years is to get our own local men out and show up what they have got in their own pockets. If a man has had 10 years experience, and will sit down and talk over his cases, he has something that is not in text-books or magazines to bring

forward, something that is worth-while. It is a great stimulus in the meetings to have your own men. I hope Dr. Morrison and Dr. Reik will have something to say now in rebuttal.

Dr. Morrison: Without any attempt at order I have jotted down some of the points brought out. I am sorry that we have dwindled down to about a dozen present. First, I want to thank the doctors from Hunterdon and Ocean Counties who will have brought the subject of my paper before the State Society. I have simply made a plea for preparedness so that no surprise will be sprung upon us, that we may have a well organized committee which will give this subject much thought, and even some study in some of the countries where this law is in force, and incorporate all that New Jersey wants incorporated into the bill. New Jersey is one of the radical states in medical practice and we should be prepared to say to the Legislature, "here is what the medical profession of New Jersey proposes to you".

The best county society meeting I have ever attended was the clinical meeting last year in Camden County, where 90% of members were present. It was the most instructive program that I have ever listened to in a county society. True, it was held in a hospital but it was not boosting the hospital nor any man connected with it, but simply bringing to the attention of the men the kind of cases they would be called upon to treat outside. It was encouraging to me for it is one of the things I have talked about for 5 or 6 years. I have advised having at least one meeting a year devoted to clinical work so that the members will know what is being done. It is also breaking down the closed hospital idea—that we fellows are the only fellows in the county who can treat cases. It is broadening the hospital for the medical profession later on.

I attended similar meetings in Union County and in Bergen County, and the Union County meeting was the next best to the Camden meeting. My papers on dues will be published in some form and will be in the hands of every member of the State Society within the next few weeks, so that each member can judge for himself whether his dues are well expended.

With reference to the collection of those dues—that is a matter of the business ability and the persuasive qualities of the Treasurer. There are some counties in the state that have been 100% paid up every year. We publish every Summer the list of counties being 100% paid up. If the Treasurer will give as much interest to the collection of dues as the other officers in his county society give to other work of the society, they should all be very nearly 100% paid up.

As I travel over the state I find a good deal of lack of information in regard to the insurance facilities offered to state society members. It is published in the Journals, we are constantly referring to it, and yet the members are ignorant of the premium rates, the divisions of the contract and the benefits to be received. I will suggest this year that we have Dr. Pinneo and Dr. Beling put down all the data relative to our insurance facilities and publish it in a small book so that the men can have it on their desks. In the U. S. F. & G. Company no man whose name is not on the official list of members can have his policy renewed on the tenth of October. This year I have answered 102 telegrams and letters asking about the standing of men who are not on the list. They are sent a copy of the list published in April. Whenever I send a list to the A. M. A. a copy is also sent to the Insurance Company. The same

plan shall be enforced with Dr. Pinneo's company so that when a member does not appear on the Official List of the State Society he is no longer entitled to have his insurance renewed. They must take the same course as any new member coming in; they must pass before the Membership Committee, must come up for reelection and must pay up all their back dues.

Dr. Buzby: Does that mean all back dues to the State or local Society?

Dr. Morrison: To both societies.

The reference made by Dr. Waters about periodic health examinations is an excellent one. If that list is published the public will know that there are men in that locality who can do the work satisfactorily and that there is no reason for going elsewhere. Private clinics are starting all over the state. They are sharp enough to go to some doctor in New Jersey and get his support and then the State Board can do nothing more about it. County societies can do something by excluding those doctors from membership but there are some 2000 doctors who are not members and who can tie themselves up with that sort of association if they wish.

Another thought brought out by the doctor from Hudson County was the possibility of extending the work that Dr. Harris suggested. It is all right for the clinics to be carried on but it should be done by the members of the county societies and advertised as such.

As I travel around in the southern group of counties I find it an excellent thing that they have invited guests from the other county societies who take part in the discussions. Dr. Tracy's idea is a good one of having each County Secretary put the other Secretaries on his mailing list, but why not extend to every county society the privilege of being present at least once?

Dr. Reik: I want to congratulate you, Mr. President, upon the success of this meeting. Nobody knows better than you the anxiety I have had about the organization of the Secretaries and Reporters and getting them to work efficiently together, and today I know we have struck our pace, because this is the best meeting of component society officers that I have attended in this or any of our neighboring states. One of the most pleasing things to me has been that Hunterdon County is represented. This emphasized and clarified several things for me that I have been trying to talk about in some of the counties. There has been some feeling among some of the members in Hunterdon County that we were having too many meetings and that after all their local members were but an insignificant feature in the State Society. And here, the first time a delegate comes to us from that county he gives us one of the most important things that has come before us and which now goes to the State Society for action. I hope that Dr. Fuhrmann will tell his society confreres that his thought was one of the most important brought before us today.

Some good suggestions were made from Hudson County. I have talked with Dr. Waters about periodic health examinations and have offered to co-operate with him to the extent that if he would formulate a standardized plan of periodic health examination we would make a moving picture film of it. You know, of course, that the State Society has a film that was made by combination of the New York County Society with the National Tuberculosis League. We bought a copy of it and used it very effectively for 2 years. We are also prepared to make a film that can be trans-

ported around the state and used for demonstrations. There is a great deal of misunderstanding in the different counties about what constitutes a proper health examination. Some of the men are opposed to doing it because they think it means having a Wassermann made, having x-rays of the teeth and of other organs of the body. That is not comprehended at all in an *ordinary health examination*, and if Dr. Waters will standardize something of the kind I will help him all I can in that matter.

I should be very glad to have expressions of opinion from members of this body as to contents of the Journal, whether anything is being used that can be embellished or improved.

As to the question of local men or guest speakers at the county meetings, a prominent Democrat once lost his chance of election to the Presidency of the United States on the basis of the statement that the tariff was a local problem. I think that the county programs are local problems. Asbury Park and Atlantic City have told you that they get the best results from invited guests. They can command the talent of the country, for an invitation to go to Atlantic City to speak on Friday night and stay over Sunday brings a prompt acceptance. It has, however, a bad effect on the local men. We are not getting out the scientific work of the local men. Those symposium meetings up in Morris County have been the best that I have attended. One excellent meeting was in Hunterdon County when there was no program, but there they could have a discussion any time. However, I don't think that is a good plan to follow and I believe they have lost sometimes in not having a stated program. But the question is a local one. In some instances you can use your local talent and in some others it is wiser to secure out of the county help.

We are always glad to receive news items for the Journal and I do wish you would send in notices of deaths. In the last 5 years 70% of the death notices that have been carried in the Journal were found more or less accidentally in the newspapers. They have not come to me through officers or members of the county societies. The last tribute we can pay to a colleague is a reference to his death, and the officers and members should keep us informed.

Dr. Sommer: Certainly the state society's officers should feel gratified at the type of discussion that has been offered here today and I think if each one of us can carry one germ home and report on it and get profit from it we will have been amply repaid for our attendance. Your President has very ably conducted this meeting and as the superior officer of the State Society I am glad to congratulate him on the value of his work. Again I want to thank you all in the name of the State Society for your attendance at this meeting.

Dr. Morrison: We are losing this year, as Secretary of one of the component societies, one of the ablest men that has ever served in the state of New Jersey. It is not necessary for me to tell you what Dr. Lathrope has meant to us in this organization. Fortunately, Morris County carries him with them but he will feel that this is his last appearance as an officer of this conference. I would like to make a motion that Dr. Lathrope be made an Honorary Member of the Conference of Secretaries and Reporters.

This motion was duly seconded and unanimously carried.

Adjournment at 4 p. m.

In Lighter Vein

Pussy's Concert

"The cat was making an awful noise last night."

"Yes, ever since she ate the canary she thinks she can sing."—Progressive Grocer.

How They Shoot in the Army

Gunnery Officer—"See that man on the bridge three miles over there?"

Gunner—"Yes, sir."

Officer—"Let him have a couple of 75's in the eye."

Gunner—"Which eye, sir?"—Army and Navy Journal.

Trouble Hunter

The owner of a cheap watch brought it into the jeweler's shop to see what could be done for it. "The mistake I made, of course," he admitted, "was in dropping it."

"Well, I don't suppose you could help that," the jeweler remarked. "The mistake you made was picking it up."—London Opinion.

Removing the Thorn

"My husband is just the opposite of me—whilst I sing he grumbles and growls."

"Then why not leave off singing."—Fliegende Blaetter (Munich).

Next!

Jimmy (watching something tasty going into sick-room)—"Please, Ma, can I have the measles when Willie's done with them?"—Toronto Globe.

Try Frogs' Legs

"I've eaten beef all my life, and now I'm as strong as an ox!" said he.

"That's funny," replied she. "I've eaten fish all my life, and I can't swim a stroke."—Tit-Bits.

Striking a Popular Note

A revivalist said to the congregation:

"There is a man among us who is flirting with another man's wife. Unless he puts \$5 in the collection box, his name will be read from the pulpit."

When the collection-box came in there were six \$5 bills in it, and a \$2 bill with a note pinned to it saying:

"This is all the cash I have, but will send the other \$3 Wednesday."—Zion Herald.

He'd Be Missed

Judge—"Now, I don't expect to see you here again, Rastus."

Rastus—"Not see me again, Jedge? Why, you-all ain't going to resign, is you, Jedge?"—Cap-fer's Weekly.

Where He Gets Off

The Post is privileged to print the following communication to Mr. L. L. Hines:

"Dear Mester Hines: I got your letter about what I owe you. Now be pachtent. I ain't forgot you. Pleez wait. Whun some fools pay me I pay you. If this was judgment day and you was no more prepared to meet your Master as I am to meet your account, you sure would have to go to hell. Trusting you will do this. I am yours truly."—Benkelman (Neb.) Post.

Woman's Auxiliary

HEALTH NEWS

(Reprint from Atlantic City Hospital Progress Notes, Nov. 1, 1930.)

Because of its pertinent message, we reprint here, an editorial from the new bulletin of the Health Department.

Read it—and think it over!

Inconsistency

Man is a most inconsistent creature. He grinds his wheat into fine white flour and discards the bran. Then he buys back the bran in a fancy box as a cure for the constipation largely resulting from the use of the soft white bread made from the fine white flour.

Man formerly lived in the open, but oncoming civilization led him to build a house for himself. He made it as tight as possible so as to keep out every bit of fresh air. But the lack of ventilation caused him to have colds and other diseases, so in the course of the evolution of things he has learned to build expensive machines to pump fresh air into his house which was so carefully made to keep out the fresh air. This is all in spite of the fact that the fresh air can be had for the asking by opening the windows, and that modern authorities insist that the natural ventilation from windows and cracks is the best.

Man shuts himself out of God's sunshine, and then takes Alpine light and ultra-violet ray treatments, to get a sunburn. He rides the elevator and automobile instead of using his legs and then painfully does his "daily dozen" to get exercise. He puts into himself a great load of concentrated food and then takes a variety of bulky food to relieve his distress.

Man gives his automobile the most expert care and attention, but neglects his own body; he insists that a certain brand of motor oil, and none other, be poured into the in'ards of the motor, but into his own system he pours every sort of medicine, home brew, and White Mule; he employs mechanics of recognized worth, but may take the medical advice of a neighbor, a quack, or a black-face at a medicine show.

Man cuts out for himself a big job, devotes his thoughts, time and energy to it, and makes a lot of money. Even though he knows from his age and the way he feels that all is not well he keeps on from force of habit and inborn grit. The break comes. Then he devotes the rest of his life and a large part of his wealth trying to buy back the health his money has cost him. It's a great life if your kidneys, or heart, or digestion, or arteries don't weaken.

DIFFICULTIES

(Reproduced from Atlantic City Hospital Progress Notes, Nov. 1, 1930.)

Because the task is difficult don't quickly let it go, The harder is the thing to do the greater joy they know

Who stick it out and see it through;
Who try and fail and try anew.
And work it over, bit by bit
Until they do accomplish it.

"I can't do this", the weakling cries and gives it up in vain,
But still the harder is the feat, the greater is the gain.

One thing is sure: he never will
Who says, "I can't" and then sits still.
But he retains a chance to win
Who has no thought of giving in.

Twixt worth and mediocrity, the difference is wide,

The good man sees his problems through; the other lets them slide.

The strong man at a task will stick
And work it out through thin or thick.
The weaker cries, "I plainly see
That job is much too hard for me".

Because the task is difficult too many tire and quit,

But that's the time to summon up your patience and your grit,

And that's the time to prove your skill.

So stick it out and work until
You justify your faith that you
Can do what any man can do.

—Edgar A. Guest.

Message from the Auxiliary's President

Mrs. John Nevin

In offering greetings and earnest well wishes at this approaching holiday time, may I say a word of commendation for the splendid work that is being done in nearly all the counties toward furthering the aims of the Woman's Auxiliary. It is readily understood that the lines of effort of each auxiliary must be largely individual according to its size and local problems; nevertheless, in the final analysis, we may call our work general, inasmuch as we are all striving for the same goal—that of service in our communities.

The larger counties have centered on a very concrete study of better child development. Lectures have been given and classes are being formed along the many lines that stress the basic principles of child behaviorism; this in conjunction with furthering other and worthy projects. The smaller counties are doing their share along equally worth-while lines.

An open Executive meeting will be held in Trenton on Monday, January 12, at the Stacy-Trent Hotel. Luncheon will be served at 1 o'clock.

Reports of activities throughout the state will be presented and speakers of note from the National Board will add to our enthusiasm, which I hope will be further enhanced by having each county well represented.

SPECIAL NOTICE

(Submitted by Mrs. W. Blair Stewart, Chairman of Publicity Committee.)

Attention! Medical Society Auxiliary! Have you read the American Medical Association Bulletin, October 1930? If not, do so now. Turn to page 170 and observe the beautiful "seal" heading the space allotted to the Woman's Auxiliary movement. Then read the entire article—Note what our leaders are doing—and determine that each of us will do her part in this association.

Change of Date

Owing to conflict with other events it has become necessary for the American Medical Association to change the time originally set for the 1931 meeting (in the month of May) to June 8-12. Naturally, this will determine a similar change for the Woman's Auxiliary.

Observe too, that plans are being made to have the national auxiliary visit Atlantic City for 1 day during the convention period.

NEWS ITEMS

(Submitted by Mrs. James Hunter, Jr.)

Woman's Auxiliary to the American Medical Association

The Ninth Annual Convention of the Woman's Auxiliary to the American Medical Association will be held at the Bellevue Stratford Hotel, Philadelphia, June 8-12, 1931.

Mrs. J. Newton Hunsberger, President; Mrs. Walter Jackson Freeman, Chairman of Arrangements. Vice-Chairmen: Mrs. William Tomlinson, Delaware; Mrs. William Pepper, Philadelphia; Mrs. W. Burrill Odenatt, Philadelphia County; Mrs. James Hunter, New Jersey.

Two rooms have been reserved for the comfort of the New Jersey delegation.

This is a most delightful opportunity for the New Jersey unit to drink at the fountain head. Now, with the Convention at our very doors, our slogan should be "On to Philadelphia 3000 strong".

Participation will bring recognition of the splendid work already starting in New Jersey and will mean enthusiasm for renewed effort.

Watch this column for Convention News Items.

Atlantic County

Reported by Mrs. Maurice Chesler

The regular meeting of the Woman's Auxiliary to the Atlantic County Medical Society was held in the "Blue Room" of the Chalfonte Hotel, on Friday, October 10, with Mrs. J. T. Beckwith presiding.

The proceeds of Card Party held July 14, amounted to \$74. The Treasurer reported a balance of \$207.23 in the Treasury.

Mrs. John F. Massey gave a most complete report of the State Convention held in June. This report was ordered filed. Mrs. Massey also gave data with which to start a history of the work of the Atlantic County Auxiliary. This was received with due thanks.

Mrs. Beckwith appointed her Nominating Committee which consisted of Mrs. W. Price Davis; Mrs. L. M. Walker; Mrs. Percy Joy; Mrs. Sidney Rosenblatt; Mrs. Pauline North and Mrs. W. Blair Stewart. This Committee is to report at our next meeting.

As a novelty, Mrs. Beckwith donated an attendance prize, which was won by Mrs. Robert A. Bradley.

A social hour of cards followed this meeting which was very enjoyable.

November Meeting

The November meeting was held at the Chalfonte Hotel, Friday the fourteenth. In Mrs. J. T. Beckwith's absence, Mrs. Joseph Poland presided.

Minutes of the previous meeting were read and approved.

Under new business, the Nominating Committee of which Mrs. W. Price Davis was Chairman, reported the following: President, Mrs. J. T. Beckwith; First Vice-President, Mrs. Joseph Poland; Second Vice-President, Mrs. D. Ward Scanlan; Recording Secretary, Mrs. Lawrence A. Wilson; Corresponding Secretary, Mrs. Maurice Chesler; Treasurer, Mrs. Robert A. Bradley.

A motion adopted to accept this report and the above officers were unanimously elected.

The usual social hour followed and cards were enjoyed, with lovely prizes for the winners.

Bergen County

Reported by Mrs. Michael Sarla

The regular monthly meeting of the Woman's Auxiliary to the Bergen County Medical Society was held Tuesday evening, November 11, at Holy Name Hospital, Teaneck, with 21 members present.

Interesting talks were given by representatives from Hackensack and Holy Name Hospitals about needing instruction for school children confined in hospitals longer than 3 months.

Mr. B. C. Wooster, of the County Board of Education, will speak to us at our next meeting.

After delightful refreshments were served the Bergen County Medical Society and our Auxiliary were entertained by some very clever slight-of-hand tricks by Dr. Gant, of Post-Graduate Hospital, New York.

Camden County

Reported by Mrs. T. P. McConaghy

The Woman's Auxiliary to the Camden County Medical Society met on Tuesday evening, October 14, in the City Dispensary, with the President, Mrs. A. J. Casselman, in the Chair.

Most interesting reports were given by Mrs. William Wescott, of Berlin, who attended the State Convention in Atlantic City; and by Mrs. A. Haines Lippincott, of Camden, who attended the National Convention in Detroit.

This being the Annual Meeting, the following officers were elected: President, Mrs. A. J. Casselman was reelected; First Vice-President, Mrs. William H. Roughley; Second Vice-President, Mrs. E. G. Hummel; Third Vice-President, Mrs. E. L. Van Seiver; Treasurer, Mrs. Thomas P. McConaghy; Corresponding Secretary, Mrs. O. W. Saunders; Recording Secretary, Mrs. W. H. Pratt. The 2 new Directors elected were Mrs. F. H. Buzby and Mrs. E. C. Pechin.

Our guests were Dr and Mrs. E. Weiss, of Philadelphia. Dr. Weiss gave a most interesting talk on "Dieting".

Essex County

A COURSE OF FIVE LECTURES

offered to

PARENTS AND TEACHERS

and to all others who are interested in the physical, mental and moral development of children.

MONDAY, NOVEMBER 3, 1930, AT 8:15 P. M.

Bruce B. Robinson, M.D.

Director of Child Guidance in the Public Schools, Newark, N. J.

MONDAY, DECEMBER 1, 1930, AT 8:15 P. M.

Ernest R. Groves, Ph. D.

Director of the Institute for Research in Social Science, University of North Carolina.

MONDAY, JANUARY 5, 1931, AT 8:15 P. M.

Sidonie M. Gruenberg

Director of Child Study Association of America.

MONDAY, FEBRUARY 2, 1931, AT 8:15 P. M.

Frank Howard Richardson, M.D.

Specialist in Child Psychology and Author of "Parenthood and the Newer Psychology".

MONDAY, MARCH 2, 1931, AT 8:15 P. M.

Julius Levy, M.D.

Director Division of Child Hygiene, Newark Department of Health.

SAYRE HALL, Y. W. C. A.

53 Washington Street, Newark, New Jersey

The course is sponsored by the Newark Y. W. C. A. School in coöperation with The Woman's Auxiliary to The Essex County Medical Society.

Ticket for the Course of Five Lectures \$1.00

Sale of Tickets Limited to 500

Hudson County

Reported by Mrs. James M. Murphy

The first Fall meeting of the Woman's Auxiliary to the Hudson County Medical Society was held on Friday afternoon, October 17, at the Jersey City Young Woman's Christian Association; Mrs. John Nevin, presided. Several questions of policy for the coming season were discussed. It was decided to again invite all eligible women to join the auxiliary, in order to be certain that all have been included on the roll who so desire.

Plans for the year include the January Card Party, which has been so successful in other years. The November meeting inaugurates the year's educational program, with Dr. Flack of the faculty of Columbia University speaking on "Child Psychology". It is the wish of the members to have speakers on the kindred subject of "Child Guidance" during the year; these lectures to be the inspiration to supplementary reading by the members of this society.

The Red Cross Chapter asked for assistance in the yearly membership work and many volunteered.

Mrs. William Freile, State Chairman of Entertainment Committee, gave a description of the meeting of the State Medical Society at Atlantic City held last June; at which meeting, our auxiliary was so greatly honored by the election of our President, Mrs. John Nevin, to the office of President of the Woman's Auxiliary to the State Medical Society.

At the conclusion of the meeting tea and conversation were enjoyed.

Hunterdon County

Reported by Mrs. L. A. Hamilton

The autumn meeting of the Woman's Auxiliary to the Hunterdon County Medical Society was held at the home of the retiring President,

Mrs. L. A. Hamilton, in Lambertville, Thursday, November 13, 1930.

The members were invited to luncheon at 1 o'clock and a very important business meeting followed.

Mrs. Joseph D. Rutherford, of Lehigh County Auxiliary in Pennsylvania, was a guest.

The following officers were elected for the ensuing year: President, Mrs. F. A. Thomas, Flemington; First Vice-President, Mrs. I. T. Topkins, Califon, Second Vice-President, Mrs. F. H. Decker, Frenchtown; Secretary, Mrs. G. B. Tompkins, Flemington; Treasurer, Mrs. V. C. Hyde, Flemington.

Mercer County

About 45 members and guests of the Woman's Auxiliary to the Mercer County Medical Society attended the Annual Dinner Meeting.

The purposes of the organization were discussed. The President, Mrs. D. Leo Haggerty was in the Chair.

Mrs. John Nevin, of Jersey City, President of the State Auxiliary, outlined activities of that organization.

Greetings were given by Mrs. George N. J. Sommer, of Trenton.

Miss Gladys Poole, instructor of psychology at the State Teachers' College, discussed "Mental Hygiene".

Miss Virginia Woodal offered dramatic readings.

County Society Reports

ATLANTIC COUNTY

John Irvin, M.D., Reporter

The monthly meeting of the Atlantic County Medical Society was held in the Roberts Room of the Chalfonte Hotel, November 14, with Dr. Homer I. Silvers presiding, and 45 in attendance.

Dr. Joseph H. Marcus read the minutes of the previous meeting.

Dr. Clarence L. Andrews, Chairman of the Board of Censors, reported that the application of Dr. Charles J. Cooney had been favorably acted upon, and he was duly elected to membership. Dr. Andrews also reported that the application of Dr. Berenda C. Weinberg was acted upon unfavorably, and it was moved and seconded that the application be not accepted. Motion carried.

Dr. Blair Stewart reported that a number of irregular practitioners had been reported to him which he in turn placed in the hands of the State Board of Medical Examiners. Suit has been brought against several of them, and they have been fined in the courts, as indicated in the newspapers. These people were doing work contrary to the State Medical Law, and some of them—women—were fined for the second time.

Dr. Stewart also urged that an ordinance be introduced compelling the inoculation of dogs once a year, in view of a local child having recently lost its life from having been bitten by a rabid dog.

Dr. Salasin said he put the proposition of having all dogs vaccinated against rabies before the

last meeting of the Atlantic City Hospital Staff, and after some discussion that body endorsed it, and when he returned from Mexico several days ago he was somewhat surprised to learn that a child had died from rabies. Dr. Salasin said that dog lovers, antis and some veterinarians to the contrary notwithstanding, felt that the life of the child was much more important, and that an ordinance should be introduced without delay compelling inoculation of all dogs against rabies. Dr. Salasin also stated that 22 dog bites within the last 48 hours had been reported to the local Health Department.

Dr. Quinn said that he did not believe that inoculation prevented rabies in all cases and that the Atlantic County Medical Society, in his opinion, should not endorse something which would not entirely prevent the disease in dogs, and that the matter should be thoroughly gone into with a competent veterinary.

Dr. Salasin said that nothing was 100% perfect, for instance that tetanus antitoxin immunizes only 85%, that while only 6% of people bitten by dogs develop rabies, the ordinance should be introduced regardless of the fact that it does not always immunize. He also stated that Japan had wiped out rabies with this method, and that we might well copy their procedure in this matter; that in any question of public health there are always many pros and cons, and that antis are always to be expected, and while it was just a *little* step forward, it was a *step*, and should be accepted and endorsed by the Medical Society and the local Board of Health.

Dr. Coward said he listened with interest to both arguments, and he believed Dr. Salasin should meet with local veterinarians and draft a proper ordinance to have all dogs inoculated.

Dr. Silvers said he believed this was the psychologic time to take the matter up, inasmuch as it was fresh in the minds of the general public and that a resolution should be adopted this evening.

Dr. Andrews said that he did not believe an argument on this question should be necessary before a body of scientific men and that the society should go on record as supporting, unanimously, inoculating dogs against rabies. He so moved. Dr. V. Earl Johnson seconded Dr. Andrews' motion. The motion was carried without a dissenting vote.

Dr. Darnall, Chairman of the Library Committee, reported that in the last 12 months 271 volumes have been added to the shelves of the Hospital Library, and that these books represent all that is newest and best in recent literature; and that the library is growing so fast that they are up against the proposition of knowing how to take care of the books. He also said that the Atlantic City Library members were endeavoring to work out a way to take care of this increased reading material. Dr. Darnall also stated that one might go into this library and find all material necessary to work out almost any scientific question.

The application of Dr. Baxter H. Timberlake, graduate of Jefferson Medical College, 1928, endorsed by Drs. Davidson and Dalton, was received, and will be presented to the Board of Censors.

The Nominating Committee reported the following nominations of officers for the ensuing year: President, Norman J. Quinn; Vice-President, George Poland; Secretary, Joseph Marcus; Historian, H. L. Harley; Reporter, John S. Irvin.

Additional name to Board of Censors, Homer I. Silvers.

Delegates to State Society, Drs. Scanlan, Andrews and Olmstead.

It was moved and seconded that all nominations be closed and that the secretary cast the ballot, with the exception of that for Secretary, in which case Dr. Silvers cast the ballot. Carried. The above officers were therefore declared elected.

A badge was presented by the Atlantic County Agricultural Society to the County Medical Society for its work at the recent County Fair, and was handed to Dr. Marcus, the Secretary.

Dr. Silvers introduced the speaker of the evening, Dr. George M. Piersol, whose subject was "Acute Hepatitis".

Considering acute nonsuppurative hepatitis, Dr. Piersol said, in part:

The term, *nonsuppurative hepatitis*, embraces all degrees of acute inflammation of the liver ranging from the transient, slight inflammatory changes that are little more than active congestion, to widespread necrosis, such as acute yellow atrophy. One difficulty in classification is the fact that it is impossible to sharply differentiate between acute conditions that involve primarily the bile ducts, and those in which inflammatory changes are limited to the liver cells. It is highly improbable that widespread inflammation of the smaller biliary ducts can exist without an associated involvement of the adjacent liver parenchyma. It is usually impossible for any considerable number of liver cells to become extensively diseased without inducing changes in the bile canaliculi, therefore, any attempt at rigid differentiation between acute inflammation of the intraphectic biliary system and the liver parenchyma, from a clinical standpoint at least, would seem to be both impossible and unnecessary.

Acute nonsuppurative hepatitis may for practical purposes be classified as follows: (1) Acute simple hepatitis. (2) Acute catarrhal jaundice. (3) Acute infectious jaundice, of which there are probably 2 fairly well defined subdivisions; (a) the primary variety, Well's disease; (b) a secondary form in which acute hepatitis is a complication of some infectious disease, such as early syphilis, typhoid fever, yellow fever, malaria or septicemia. (4) Acute toxic hepatitis. (5) Acute yellow atrophy.

Acute simple hepatitis is a somewhat uncertain and indefinite condition in which active congestion of the liver is associated with cloudy swelling and more or less inflammatory reaction on the part of the liver cells. The impression is gained from literature that this condition is of most clinical importance in tropical countries.

Acute catarrhal jaundice, generally a benign condition, was originally thought to be due to obstruction of the lower end of the common bile duct, from swelling of its mucous membrane and blocking of its lumen by a plug of mucus. Such an obstructive inflammation has frequently been preceded by a gastroduodenitis. Recent observations indicate that there are other instances in which inflammation of the smaller intrahepatic ducts is associated with changes in the liver cells; in short, a true hepatitis exists along with the cholangitis. The clinical manifestations are too well known to justify extensive discussion, and little has been added in recent years to the well-known description of symptomatology of this disorder.

Acute infectious hepatitis, or jaundice, may occur as a primary disease, the result of a specific microorganism, or may develop secondarily in the course of an infection. The first type is frequently referred to as Weil's disease, because described by him in 1886 as an acute infectious disease characterized by enlargement of the spleen, jaundice, and nephritis. It has been especially common in armies and ample opportunity was given to study the disease during the World War. Inada and Ido isolated the specific organism of this disease and classified it as one of the group of spirochetes; observations which have been abundantly confirmed. It is not known how this spirochete is transmitted. Direct infection from man to man is unlikely; the rat is held responsible by some; others believe that some insect acts as the intermediate host. The disease comes on suddenly, usually with a chill, followed by fever up to 102°. Onset is accompanied by severe muscular pains, prostration and gastro-intestinal symptoms. There may be severe toxic nervous symptoms. After 3 to 6 days jaundice develops, and improvement in general symptoms begins—temperature returning to normal in about 5 days. In many cases, however, a second febrile period develops, and the recurrent general symptoms may be more severe than in the primary attack.

The secondary type may occur as a complication of many acute infectious disorders. It has been observed especially along with pneumonia, typhoid fever, malaria, influenza, dengue and various forms of septicemia, particularly that due to streptococci and that occurring in early syphilis.

Acute toxic hepatitis constitutes one of the most interesting groups because it is produced by entrance into the body of various substances which under certain conditions are capable of bringing about necrotic changes in the liver. It is of unusual economic importance because of the frequency with which certain chemicals, such as derivatives of the benzene group are being used in the manufacture of explosives and dye stuffs, and because of the wide-spread and too often indiscriminate use therapeutically of organic arsenical preparations such as cinchopan and atophan. Since the introduction of salvarsan, neosalvarsan, arsphenamin and tryparsamide in the treatment of syphilis, the literature has been filled with reports of cases that have developed jaundice following such treatments. We have had the opportunity of carefully studying 16 cases of acute hepatitis with jaundice following the use of organic arsenical preparations. All of these cases were proved to have syphilis in the late secondary or tertiary stages, and in most instances toxic symptoms did not develop until the drug had been administered several times. On the other hand, in a few cases, symptoms manifested themselves after only 1 or 2 injections of the drug.

Acute yellow atrophy, the most severe and fatal type of acute hepatitis, remains for consideration. Until recently, it was looked upon as an exceedingly rare disease. Apparently it is twice as common in women as in men and the majority of cases occur between 16 and 30 years of age. The exciting factor is unknown.

DISCUSSION

Dr. Darnall: I am sure that we have all enjoyed Dr. Piersol's paper, and I am a little disappointed that Dr. Piersol did enter into some of the surgical aspects of the case. Just how much do infections of the gall-bladder have to do with these

cases of old chronic choleangitis, which I think everyone agrees is secondary to infection of the gall-bladder? To have cholecystostomy or cholecystectomy done would undoubtedly reduce many of the chronic changes in the liver. I would be glad to hear this phase discussed.

Dr. Stalberg: It is known that during the influenza epidemics such as occur about every 30 years there also usually follows an epidemic of conditions attributed to liver disturbances. After the last epidemic there followed a good many cases of encephalitis as well. Some physicians consider these diseases as really forms of influenza, and I should like to have Dr. Piersol say something about that question; and especially in view of his large army experience.

Dr. Salasin: Dr. Piersol's paper brought an unusual incident of 2 years ago to my mind. I was called to a family where there were 5 children, ranging from 3 to 11 years of age. The 2 younger children had chills, fever, diarrhea, and gastro-intestinal upset. The next day I was called in to see 2 of the other children who had the same symptoms, and I prescribed the same thing. At that time I made a diagnosis of gastro-enteritis, as we are inclined to do, sometimes for want of a better diagnosis. The next day the fifth child had developed the same symptoms, and I discovered that the 2 youngest children had jaundice—clay colored stools, etc., and were very sick. The next day the 2 other children had developed jaundice, and the following day the fifth child had jaundice. Was I dealing with some form of Weil's disease, or intestinal upset with liver disturbance?

Dr. Scanlan: So far there has been no discussion of Dr. Piersol's paper. Twenty years ago, at the University of Pennsylvania, I learned that Dr. Piersol covered his subjects so thoroughly that there is nothing left for discussion.

Dr. Kilduffe: I have nothing to say, excepting that I am exceedingly annoyed with Dr. Scanlan for saying the very thing that I was going to say.

Dr. Piersol: If any of you gentlemen heard Dr. Deaver's paper about a month ago on "hepatitis", I am sure you were impressed with his discussion of the relation between cirrhosis and infection of the gall-bladder. Nearly all of those forms were shown to be infections, and the rôle of the biliary tract in the chronic infections is definite. The relation between influenza-encephalitis, I am not prepared to answer. Following these epidemics, there is usually an increase in such conditions, and whether the influenza is the causing factor, or something else, we do not know. However, I cannot help but feel that there is a definite relationship between them, for, as mentioned by Dr. Stalberg, there was a great increase in liver diseases following the influenza epidemic of 1918.

With reference to the cases of jaundice in children, which Dr. Salasin spoke about: There are cases of so-called acute catarrhal jaundice, and it is well known that they will develop in epidemics, and seem to occur from a wide-spread bacterial infection of some kind. That group of children probably had the same infection, and I believe there are many cases of so-called catarrhal jaundice in which the real cause is a bacterial agent.

Dr. Silvers: I am sure we are greatly indebted to Dr. Piersol for this paper and discussion.

Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The stated monthly meeting of the Atlantic City Hospital Staff was held in the Auditorium on the evening of October 24, with President D. B. Allman in the chair.

The scientific program was presented by Dr. Philip Marvel, Jr., of the Medical Staff, and Drs. Homer I Silver and John S. Irvin of the Surgical Staff.

Dr. Marvel set forth a statistical survey of the medical service, following which cases were presented.

On the medical service for the months of May, June and July, 1930, there were 187 patients whose stay in the hospital amounted to 2653 hospital days, an average of slightly more than 14 days per patient. Of these patients, 21 were discharged as cured, 103 as improved, 10 as unimproved, 21 signed releases and 32 died. Of the 32 who died, 14 were in the hospital 24 hours or less. Of the fatal cases, autopsies were made on 10.

Case 1. Female, aged 62, admitted April 21, with chief complaint of slight epigastric pain, present at intervals for the past 20 years, and occurring before and after feeding. The past history disclosed: 2 laparotomies and 1 mastoid operation; had 10 children with but one living. Physical examination disclosed enlargement of the heart to right and left, with a soft systolic murmur; lungs essentially negative; tenderness on deep pressure over abdomen; spleen enlarged, not tender. The urine contained occasional hyaline casts, occasional red blood cells and 8-10 leukocytes; 3,400,000 R. B. C. and 2200 leukocytes; hemoglobin 55; color index 8+; polymorphonuclears 29%; small lymphs 65%; large lymphs 4%; eosinophiles 1%; transitional O. Blood Wassermann and Kahn negative. Other laboratory procedures revealed nothing of importance, while repeated blood examinations showed no variations. Several days later feces revealed a small amount of occult blood. About 3 weeks later the leukocytes were 5050 with marked increase in the polynuclears, amounting to 73%; small lymphocytes 19; large lymphocytes 7. Temperature range was 99.2 to 102° and rose to 106°, before the patient died, about 1 month following admission. During her stay in the hospital proctologic and pelvic examinations disclosed no pathologic findings; spleen increased in size, Widal was constantly negative.

Autopsy report. The right apex of the lung shows an old fibrosis, and there are calcified nodules in the left as well. The vessels of both lungs are engorged—most marked in the bases, where there may possibly be moisture. There is a light shading of both diaphragmatic sulci. The patient was horizontal, and the question of fluid level could not be determined. The left diaphragm is at about the same level as the right; film probably made at expiration. The contour of the heart and great vessels resembles that of hypertension and arteriosclerosis, with increase in the transverse diameter of the base, and increased salience of the arch of the aorta to the left, with normal perpendicular diameter of the arch. The contour of the gas filled intestines shows no evidence of peritonitis. The spleen is large, long axis about twice normal length, with approximately 25% increase in transverse axis. There are some dense nodular calcifications in the region of the left ascending bronchus.

The conclusions drawn by Dr. Marvel as a result of electrocardiographic study disclosed diffuse myocardial disease.

Dr. R. A. Kilduffe, in consultation, had noted: The outstanding features of the clinical history are the past attack of scarlet fever, mastoiditis and mastoidectomy, the "heart burn" and the intermittent joint pains. The outstanding features of the physical examination are the obvious pallor, dilated veins over the upper abdomen, systolic murmur, myocardial weakness, splenic hypertrophy, and tenderness over the left mastoid. While the past history strongly suggests that there has been a cardiac deficiency for some time the low-grade temperature, joint pains and possibility of a recurring mastoiditis bring up the question of a possible subacute bacterial endocarditis. The lymphocytosis, also, may be related to the chronic tuberculosis which the x-ray findings suggest. The most probable causes for the clinical condition are Banti's disease and subacute bacterial endocarditis. In favor of Banti's are the enlarged spleen, leukopenia and lymphocytosis; opposed are the absence of any history of hemorrhage, low-grade fever and presence of a subacute cardiac lesion. In favor of endocarditis are the fever and the cardiac findings; opposed are the absence of leukocytosis and the splenic enlargement.

* Dr. John S. Irvin reported statistics from the service of Dr. Homer I Silvers, after which he presented the following résumé relative to acute appendicitis: Admissions, 277; discharges, 264; left from previous service, 12; left to following service, 25; total cases treated, 289; total hospital days, 3712; average stay in hospital, 12.8; number of operations, 149; deaths, 10.

While attending a clinic at the Philadelphia General Hospital, given by Dr. Bowers during the recent Clinical Congress of Surgeons, I heard him speak on the importance of early diagnosis and treatment of acute appendicitis. He said that a survey had recently been made in several Philadelphia hospitals, including more than 5000 cases. Of cases operated upon within the first 24 hours, the mortality was 2.55%; in the second 24 hours, 6.31%; from 48 to 72 hours, 8.59%; after 72 hours 11.86%. As a result of this survey, the Bureau of Health prepared a sticker which was given to all physicians to enclose with their bills to patients. This sticker emphasized the importance of calling the doctor promptly in all cases of abdominal pain, and of withholding cathartics until the patient had been seen by a physician. Following this campaign there was an appreciable drop in the mortality of acute appendicitis in the hospitals studied. I thought that it might be of some interest to look at the acute appendicitis cases we had on our last service. While these cases are too few in number to draw definite conclusions, I think they are sufficient to show that there can be considerable improvement in the treatment of appendicitis in Atlantic City. Of 28 cases only 7 came to operation in the first 24 hours, 5 in the second 24 hours, 12 were received after 48 hours and 4 after 72 hours. There were 2 deaths in this group; one a man of 65 who came in after 48 hours with a ruptured gangrenous appendix; the other a colored woman who had been sick 10 days, and came in with a large pelvic abscess which ruptured before operation.

While most physicians are able to diagnose appendicitis correctly most of the time, it is not always easy as the following cases will show. One

condition which is especially likely to be confused with acute appendicitis is acute salpingitis, especially of the right tube. On our recent service we operated upon 3 cases of acute salpingitis after making the diagnosis of appendicitis. In each case, the appendix was found in intimate relation with one or the other tube and was secondarily congested as a consequence.

We made mistakes the other way in 2 cases. One was a case of pelvic abscess; because the condition was confined to pelvis it was assumed that it came from the tube. The other case was that of a young woman who was taken sick 3 days before coming to the hospital with pain in the lower abdomen. She was rigid and tender over the whole lower abdomen, more on the right side; exquisitely tender over her right tube and ovary on vaginal examination, and less tender over left adnexa; a bulging mass in the vaginal vault and a vaginal discharge. Diagnosis of acute salpingitis was made and she was turned over to the gynecologic service. Fortunately, they did a laparotomy and found a ruptured gangrenous appendix lying in the pelvis. The tubes were secondarily inflamed and there was a pelvic abscess. If this patient had been seen earlier, it might have been possible to make the correct diagnosis. Certainly it is safer to operate upon an occasional case of acute salpingitis than it is to let an appendix go without operation.

Dr. Homer I. Silvers briefly reviewed his surgical service, evaluating the dominant findings in fatal cases, most of which were severe traumatic cases in which death occurred shortly following admission. From the reading of the list of deaths, it becomes apparent that the greater proportion come from violence, and that this hospital deals very largely with conditions of acute trauma. To have injuries is to have a certain proportion of cases that are more or less in a state, when admitted, that we speak of as shock. To consider shock is to think at the same time of hemorrhage. The two may exist separately, or may be present in the same individual. To treat a patient for shock without giving thought to the possibility of hemorrhage, will often lead to a grave error. The general symptoms of hemorrhage closely approximate those of shock, and the presence of hemorrhage will predispose toward shock. In injuries to the abdomen or kidney region, we of course must think of concealed hemorrhage, although with the kidney it may show in the urine. In cases of trauma to the abdomen, it is not so easy to distinguish between shock as the result of trauma, and the concealed hemorrhage with it following shock. Careful investigation with close scrutiny of the history may aid in the search.

In primary shock there may be a slight elevation of blood pressure, and the pallor, chilliness, faintness and sweating may accompany a slight wound or traumatism. If the condition of primary shock is not promptly met, or if the patient is allowed to remain in cold, damp surroundings with wet clothing, and if accompanied by pain and thirst, the primary shock may drift over into that of a secondary shock, and become very serious. Blood pressure becomes the most important factor in determining shock; the severity of the shock can be measured by the blood pressure apparatus. For practical purposes the statement by Cannon may be used: that a pressure, systolic below 100, and a diastolic below 65 is a warning of danger.

However, or whatever we may think regarding

the mechanism of shock, or in what terms we may speak of it, there remains the fact that the picture of one in shock is an alarming thing, and if it is not recognized as an emergency it is apt to progress rapidly on to death.

Dr. Senseman: Concerning shock the clinical recognition of shock presents a vivid portrayal of certain features garnered from years of practical experience. One must not place too much stress on laboratory interpretation in treating shock. In acute accidents the first important feature one meets with is shock and it is the most important element to recognize and treat. Not infrequently other treatment is dangerous. In many cases of suppurative appendicitis there is an interval in which one should allow a walling or a limitation of the process, in order to establish a certain amount of immunity. Ochsner felt justified in allowing the process to become demarcated and then instituting operative procedure.

Dr. Taggart was in accord with *Dr. Senseman* regarding shock. The difference between hemorrhage and shock may be obscure at times. In shock use heat, absolute rest, morphin and atropin, and glucose followed by normal saline. Transfusions and other heroic measures may be indicated in certain cases.

Dr. W. Blair Stewart has been impressed with one point—that one can do too much in the treatment of shock. The early rule of many years ago still is of great importance, and which has for its interpretation, “not over-dosage with remedies”.

Dr. Stewart who is an honorary member of the staff took this opportunity to compliment the members of the hospital staff upon the type of work being done and the conscientious, coöperative attitude of individual members of the staff.

Dr. Mason: Concerning shock, particular emphasis should be placed upon the dispensary procedures, as here the Resident Physician will first come in contact with the patient and immediate procedures not infrequently must be carried out here to save the life of the patient.

Dr. Johnson briefly reviewed the physiologic procedures noted in cases of shock. In analyzing appendectomies, the mortality range presents wide variations in different hospitals, the significance of which is to be found in early recognition and early surgical procedures.

Dr. Carrington: The low mortality of acute appendicitis in our own hospital is due to early recognition by the attending practitioner who immediately hospitalizes his patient. He cited several severe cases of appendicitis in which the moribund condition was brought about by over medication, especially by the use of castor oil.

Dr. Uzzell: Castor oil is one of the greatest offenders, in causing rupture of the appendix in what otherwise might have been cases of simple acute appendicitis.

Dr. Brown: Cited a severe case of hemorrhage in a female whose blood counts were normal. This patient had ruptured ectopic with blood in the pelvic cavity. This uncommon finding is in direct contradistinction to the usual blood findings in cases of internal hemorrhage. Relative to operative procedure, when differential diagnosis of acute salpingitis or appendicitis is doubtful, it is the belief of certain groups that one should proceed to operate.

Dr. Conaway did not feel justified in operating for tubal condition in obscure cases; if symptoms and signs point more to an inflammation of

the appendix, operative procedure would be justified.

Dr. Kilduffe: Concerning Dr. Brown's remarks as to the blood count in hemorrhage: In ordinary hemorrhage the loss of fluid and blood elements is proportionate. A blood count immediately after, therefore, naturally cannot be expected to show anything. It is only after some hours, when the fluid loss has been made up as best it may by transfer of fluids, that any effect is noted in the blood count. This effect is solely one of dilution from the degree of which some estimation of the extent of blood loss may be had. Of course, the leukocyte reaction to hemorrhage in a closed cavity lined with a permeable membrane is another story.

Pine Rest Sanitarium

Harry Subin, M.D., Reporter

Regular monthly meeting of the Staff of the Atlantic County Hospital for Tuberculous Diseases was held at Pine Rest Sanitarium, Thursday evening, November 13. The meeting was called to order by the President Dr. Hudson at 7 p. m. The subject of attendance at staff meetings was discussed, and it was suggested that drastic action be taken against members habitually absent.

Dr. Hudson brought up the subject of opening a "clinic" in the western part of Atlantic County under supervision of Pine Rest Sanitarium; this clinic to be directed by one or more physicians and a red cross nurse. Dr. Marcus moved, and Dr. Kilduffe seconded the motion, to appoint a committee to investigate the feasibility of opening such a clinic. The motion was carried and Drs. Fish, Frank and Marcus were appointed. The committee later reported that such a clinic could be conducted, with place and time arranged to suit the attending physicians, and the report was accepted.

The business meeting adjourned at 7.50 p. m. Dr. Marcus then read the scientific paper of the evening "Non-Tuberculous Bronchial Adenopathy".

Members present: Drs. Hudson, Marcus, Kilduffe, Kaighn, Fish, McGeehan, Mr. Conover. Guests: Drs. Nickman, Cyr, Krechmer.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held at the Holy Name Hospital on the evening of November 11. Dr. Edward W. Clarke presided. The minutes of the Executive Committee meeting were read and approved.

Applications for membership by Dr. Calvin C. F. Bosch and Dr. G. Leonard Johnson were read.

Dr. William P. Kelly, of Westwood, was elected to membership.

Dr. Joseph R. Morrow reported that the program of the public relations committee for this year was to tell the public the medical profession will do its full share to help the unemployed and others in straightened circumstances. Dr. Wolowitz announced the radio program over

WBMS. This work seemed to have the endorsement of the society.

Dr. Spencer T. Snedecor reported on the meeting of the County Society Secretaries and Reporters at Trenton. Two major recommendations were made to the society; that 1 meeting this year be for the discussion of *state medicine*; second, a general meeting of all the County Societies in each Councilor District be arranged once each year. This would include Hudson, Passaic, Sussex and Bergen Counties, in our district.

The secretary was empowered to order 50 automobile emblems.

There were 2 features on the scientific program: Dr. Samuel G. Gant, of New York, gave some amusing reminiscences on proctology and other topics.

Dr. T. Bosch showed lantern slides to illustrate his talk of work in his hospital at Amoy, China.

Both talks were very interesting and at the supper table, where the Woman's Auxiliary was also gathered, Dr. Gant entertained with his skill in prestidigitation.

BURLINGTON COUNTY

Roscus I. Downs, M.D., Reporter

The 101st Annual Meeting of the Burlington County Medical Society was held at the Burlington County Hospital, Mount Holly, on Wednesday, November 12. The President, Dr. Emlen Stokes, called the meeting to order at 1.30 p. m., with 36 members and guests present. The guests included: Drs. Lawrence of Ocean County, Diverty and Hunter of Gloucester County, Marvel and Conway of Atlantic County, Bunsanski of Fairview Sanatorium and H. O. Reik. The minutes of the previous meeting were read and approved.

There were 2 applications for membership, Drs. Eugene A. Meyer, of Moorestown, and Francis F. Borzell, of Philadelphia; both were referred to the Board of Censors for approval.

The nominating committee, composed of Drs. Downs, Bauer and Newcomb, presented the following candidates for office during the ensuing year and all were elected:

President, Joseph M. Kuder; Vice-President, Howard C. Custiss; Secretary and Treasurer, George T. Tracy; Reporter, Roscius I. Downs; Censors, Ulmer, Mulford, Thorn; 3 Delegates to State Society, G. T. Tracy, M. W. Newcomb, R. I. Downs; 3 Alternates, H. W. Bauer, E. P. Darlington, Edgar Haines; 1 Delegate and 1 Alternate as member of Nominating Committee of State Society, M. W. Newcomb, delegate, E. P. Darlington, alternate.

Delegates to Camden County Society, Jacob M. Davis, Luther Hartman; Delegates to Atlantic County Society, Hammell P. Shippis, E. L. Small; Delegates to Gloucester County Society, Elizabeth F. Love, P. M. Scott; Delegates to Salem County Society, P. B. Reisinger, W. E. Rink; Delegates to Cape May County Society, Alex. Marcy, Nathan Thorn; Delegates to Ocean County Society, D. H. LeFavor, M. M. Schisler.

Chairman Section for Practice of Medicine, for January meeting, Harry L. Rogers.

Chairman Section for Surgery, for March meeting, Hammell P. Shippis.

Chairman Section for Surgery, for March meeting, Daniel F. Remer.

Dr. Joseph Stokes was appointed Historian.

The subject of non-payment of medical fees for commitment of indigent applicants to the county asylum was discussed. The present committee composed of Drs. Remer, Tracy and Ulmer, were asked to continue and present definite recommendations for action by the society at the next meeting.

Dr. Reik told us about the organization of the newly appointed Welfare Committee of the State Society and of its work.

The following program was presented—Demonstration of the Drinker Respirator with discussion of its clinical and experimental uses, by Drs. T. S. Wilder and Douglas Murphy, of the University Hospital, Philadelphia.

The principle on which the apparatus works is as follows:

The patient is placed in a metal box or respirator with his head protruding from one end through a snugly fitting rubber collar. When the respirator is closed the body is in a relatively air-tight container, with the head exposed to room atmosphere. By means of an electrically driven air pump and valve arrangement, changes of air pressure are induced within the respirator. Thus, moderate degrees of accurately measured negative pressure are made to alternate rhythmically with atmospheric pressure. When negative pressure is applied to the chest air at atmospheric pressure enters the respirator through the nose, mouth and trachea, is drawn into the lungs and the chest expands. When pressure within the respirator returns to normal, the elastic recoil of the chest produces expiration. The principle is sound, and the method has now been demonstrated to be practical, while the machine for its application has now reached a high degree of perfection. The machine can be set in operation in a few seconds and its action can be maintained for an indefinite period of time. The normal rate and depth of breathing can be closely simulated, and adequate ventilation can therefore be achieved. The infant can be maintained at a temperature which throws no undue load on its metabolic activity. Throughout treatment the infant can be maintained in such a position as to facilitate a free drainage of the respiratory passages. The usual methods of inducing and maintaining artificial respiration, such as slapping, swinging, and flexing of the body, are dispensed with, nor is the child subjected to any sudden shocks, such as tubbing in cold water. Pulmonary infection and the potential danger of lung rupture from excessive and forceful mouth-to-mouth insufflation are also avoided. In fact, the infant is subjected to no physical force the degree of which cannot be accurately measured and controlled.

This is mostly for asphyxiation of new born babies, but can be used for paralysis of respiration from any cause; infantile paralysis, tetanus, strychnin poisoning. Every large medical center should have this apparatus.

The president, Dr. Emilen Stokes, read the President's Annual Address, taking for his subject, "What the Medical Society Should Mean to its Members". (To be published in the Journal shortly.)

Following a tasty dinner the meeting adjourned to reconvene in January.

CAMDEN COUNTY

Robert S. Gamon, M.D., Reporter

The regular monthly meeting of the County Medical Society was held in the Camden City Medical Dispensary, Tuesday, November 4, at 9 p. m. In absence of the President and Vice-President, Dr. A. H. Lippincott, Past-President, presided.

The Business Committee reported that it had authorized publication of the monthly program of this society in the Weekly Roster and Medical Digest. The Roster will be sent to each member of the society.

Drs. J. S. Shipman, 542 Cooper Street, Camden, and M. L. Weimann, 803 Station Avenue, Haddon Heights, were elected to active membership. Dr. G. S. Kinney, 249 Woodlawn Terrace, Collingswood, was nominated for membership.

The scientific program consisted of a paper presented by Drs. Sanley P. Riemann, Director of the Research Institute of Lankenau Hospital, Philadelphia, on "Mitosis, Wound Healing and the Sulphydryl Group". Lantern slides were used to illustrate the subject and show the manner in which biochemical research has reached out into the field of cancer. The society was grateful to Dr. Riemann and extended him a vote of thanks.

Mr. W. O. Ilgenfritz, Superintendent of the Accident and Health Department of the United States Fidelity and Guaranty Company, gave a talk on the Malpractice Insurance Policy offered by the State Society through this company.

Dr. Gordon F. West, 527 Cooper Street, Camden, was admitted as a Fellow to the American College of Surgeons, at its recent meeting in Philadelphia; there are now 12 members of the Camden County Medical Society in that college.

A communication from the president of the society, Dr. W. J. Barrett, who is convalescing from illness, was read: it is hoped he will be able to preside over meetings by the beginning of the New Year.

Drs. Diverty and Hunter, from Gloucester County, were in attendance at the meeting and there were 48 members present.

County Tuberculosis Association

At the Annual Meeting, in Camden, November 6, the President, Dr. Alex. Macalister, said:

We all agree that we have progressed in our crusade against the Great White Plague and it is needless for me to comment on our statistics, or to urge you to sell the Christmas Seals. We all know that the Seals must be sold, and that the more we sell the sooner we shall stamp out tuberculosis.

I have felt for some time that we need a change of tactics. Our advice sometimes savors too much of hot-house treatment, and I am beginning to feel that we need more robust teaching—something that will appeal more to the ambitions of the people at large, among whom there are always many possible cases of tuberculosis in its first stage. I want to suggest a return everywhere to outdoor meetings, especially to community singing in our public squares and parks. We had such gatherings during the World War, but now, with the growth of radio

broadcasting, we are again becoming a nation of indoor people; save when we are burning up the highways in automobiles while we should be burning up refuse matter in our own bodies by means of vigorous exercise.

I want to advocate the stressing of outdoor singing, and outdoor gatherings generally. Our parks are used chiefly by young folks for athletics. I would have everybody use them, particularly on Saturday afternoons, and on selected evenings. The old-time walking parties should also be revived. There is nothing better for health and for creating friendships, as well as observation of plant, bird and animal life. True enough, there is little room now for walking, but paths could be easily set apart and advertized.

Let us have a return to the "great outdoors". It is worth all the medicine in the world. It means mental and moral sanity, and the prevention in many cases of decided tuberculosis.

As for the Seals, our sales last year were not satisfactory. Let us do better this year, and while we are pushing the Seals let us plan for a sweeping outdoor movement next year. One suggestion breeds another. Take my suggestions, and see what you can add to them.

CAPE MAY COUNTY

Eugene Way, M.D., Reporter

The Forty-Seventh Annual Meeting of the Cape May County Medical Society was held at the Hotel Bellevue, Cape May Court House, October 30, at 6 p. m., with President Millard Cryder in the chair and 35 in attendance.

Dr. Julius Way, Chairman of the County Welfare Committee, made a comprehensive report.

The Committee on Post-Graduate Course of Study arranged by Rutgers University reported that course of lectures for Atlantic and Cape May Counties had been given at Atlantic City and that 2 members of the Cape May County Society, Drs. C. W. Way and Margaret Mace, had attended. The course was high class in every respect and well worth the time and expense of attendance. The course is to be repeated this year and it is hoped that a larger number will avail themselves of its unusual advantages.

The following officers for the year 1931 were elected: President, Millard Cryder; Vice-President, Allen Corson; Secretary and Reporter, Eugene Way; Treasurer, H. H. Tomlin; Censor for 3 years, W. P. Haines; Delegate to State Society for 3 years, Aldrich C. Crowe; Alternate for 3 years, John B. Townsend; Member of Nominating Committee of State Society, Clarence W. Way.

The President then introduced Professor J. T. Rugh, of Jefferson Medical College, who gave an address on "Focal Infections and Their Interest to the General Practitioner". The address was scholarly, educational and highly entertaining, representing the latest discoveries, and was greatly appreciated by the society.

The President then introduced Dr. M. J. Mally, of Atlantic City, a well known and highly successful exodontist and dental radiographer, who gave an address on "Teeth and Their Relation to Health".

The addresses of Drs. Rugh and Mally were discussed by Drs. W. Blair Stewart, H. O. Reik and Philip Marvel, Jr., of Atlantic City, who

spoke from the medical standpoint; and George N. J. Sommer, President of the State Medical Society, who spoke from the viewpoint of a surgeon. Dr. James Hunter, Past-President of the State Society, also spoke and brought out several points of interest.

Dr. Sommer charmed the society by a pleasing and delightful talk which made us all glad that we have such a man for leader of the State Medical Society.

Dr. J. Bennett Morrison, Secretary of the State Society, then read a paper on the work of the State Society; the need of its continuance and the reason for the increased yearly assessment. He praised the work of Dr. Reik with the Journal and of Mrs. Taneyhill as Field Secretary.

The Secretary stated that Drs. A. J. Friedland and Ida M. Friedland, of Woodbine, N. J., had resigned from the society. On motion, their resignations were accepted.

The society adjourned for dinner, where speeches were made by Drs. Morrison, Hunter, Reik and Stewart, Mrs. Sommer, Mrs. Hunter, Mrs. Stewart and others.

The place of next meeting was left to the President.

It may be of interest to note that the Treasurer was elected for his eighteenth term and the Secretary for his twenty-fifth term.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

Dr. Henry C. Barkhorn, President of the Essex County Medical Society, presided at his first meeting Thursday evening, November 13, in the auditorium of the Academy of Medicine of Northern New Jersey. The meeting was well attended, about 150 members being present. In a brief speech Dr. Barkhorn outlined his policy for the county society during his term of office, saying:

"I appreciate the privilege of leadership and realize that in these times when our attitude, as well as that of the public, toward medical care is undergoing so marked a change, leadership carries with it responsibilities. If, during the coming year, I can bring to your attention what is going on in Essex County in relation to the doctor as well as renew your interest in our contacts with social welfare agencies, with the groups that are managing our hospitals, and in that way affecting our economic welfare; if during the coming year I can show you what the Board of Education and the city and county authorities as well as our local health authorities are doing; and if you on your part will coöperate by sincere and earnest discussion so that we can determine either what is wrong with these activities or what is wrong with us; I am sure we will go far on our way toward solving those problems which are nearest to us, just as we did during the presidencies of Drs. Connolly and Bingham."

The minutes of the Annual Meeting were read by the Secretary, Dr. Pinneo.

The society next turned its attention to the consideration of a Newark problem. Commissioner Murray, Director of the Department of Public Works of the City of Newark, in whose department rests the Department of Health with all its ramifications, being dissatisfied with the present method of having 8 District Physicians

paid by the city a salary of \$1000 per year to be on call to visit the indigent poor at their homes, proposed to abolish the present system and instead have a list of 100 or more physicians (named by this society) who would call on the sick poor on demand and be paid by the City of Newark so much per visit—estimated at \$1.50 for day calls and \$2 for night calls. This plan had been presented by Commissioner Murray personally to the Council, explaining his reasons and urging its adoption because of the emergency due to business depression. A special committee of the council was appointed to consider the subject; Drs. David A. Kraker, Chairman, John F. Condon, James F. Lowrey and Henry C. Barkhorn.

Reporting for this committee, Dr. Kraker said conferences with the present district physicians and with leaders of welfare organizations in the city had convinced them that no emergency existed, although one might develop during the winter. Director Murray's plan, he said, approaches state medicine, which the society opposes in principle. The committee found that the present district physician system is inefficient and unsatisfactory, but Murray's plan would also be unsatisfactory to citizens, welfare organizations and physicians. Realizing that an emergency may arise, however, Dr. Kraker declared that the committee had evolved another plan.

The committee's recommendations were:

(1) That the District Physicians be organized more definitely into a group.

(2) That they be relieved from the necessity of making check-up calls upon contagious suspects from the Public School System of the City of Newark, which at this time constitutes about 60% of all calls made.

(3) That the corps be increased.

(4) That the districts be subdivided.

(5) That the system of reception and assignment of calls be changed so as to increase efficiency of the service throughout the 24 hours.

(6) That a roster be kept so that a sufficient number of District Physicians be available for night duty at all times.

(7) That there be a proper supervision of the work of District Physicians.

(8) That a system of records be kept and that such coöperation with the Nursing Agencies available be made as to facilitate home treatment to the greatest degree and avoid hospitalization of patients except in great emergency.

(9) That the salary of District Physicians be increased to at least \$1200 a year and that there be a graded increase for length of service and for creditable work of at least 20% after 3 years.

The report of the committee was enthusiastically and unanimously adopted and referred back to the Council.

Following an address by Dr. Paul Keller, executive of Beth Israel Hospital, Newark, on the subject "Will the Medical Profession Profit by County Aid to Hospitals?", the advisability of county aid for care of free ward patients in private general hospitals was discussed and a committee was appointed to study the subject and report to the society for action.

Selected by President Barkhorn, the committee includes Drs. F. R. Haussling, Medical Director

of Newark Memorial Hospital, chairman; Paul Keller, Executive Director of Beth Israel Hospital, and W. H. Areson, of Upper Montclair. In his paper, Dr. Keller supported his campaign to gain appropriations from the Board of Freeholders for care of indigent patients in charitable hospital wards. A committee of freeholders is studying the problem. Dr. Keller declared some hospitals may have to give up their ward services unless government aid is obtained for indigent patients. He argued that the plan does not fall under the head of state medicine. Care of the sick poor is a community responsibility, and should be supported by taxation. He stressed also the value of wards, in private hospitals, to the medical and nursing professions.

Discussion of the subject from the floor lasted half an hour.

Dr. Harrison S. Martland, Chief Medical Examiner of Essex County, spoke on "The Medical Examiner's Office; Its Relation to the Profession and to Scientific Medicine". With the assistance of lantern slides he described the purpose and activities of the office. He described contributions to scientific medicine, as analysis of heart conditions causing sudden deaths, the investigations of the pathologic changes in the radium workers, the nervous system injuries in pugilists known as "Punch Drunk", the responsibility in coöperating with the police in criminal investigations, and many interesting and curious conditions found in the activities of the medical examiner's office.

The following new members were elected: Robert A. Cacciarelli, 598 N. 6th St., Newark; Meyer J. Cohen, 32 Runyon St., Newark; Thompson Frazer, 31 Lincoln Park, Newark; and George C. Freeman, 1 Lenox Place, Maplewood.

Dr. Barkhorn announced the following committees for the year:

Medical Education and Hospitals—W. P. Eagleton, Chairman; W. H. Areson, A. C. Christian, J. F. Condon, Max Danzis, R. D. Freeman, Wm. Gauch, J. F. Hagerty, E. R. Haussling, E. Z. Hawkes, Edgar Holden, R. E. Humphries, Edgar A. Ill, Sidney Keller, A. E. Parsonnet, Guy Payne, E. L. Smith, E. W. Sprague, A. F. Thompson, E. G. Wherry.

Ethics—R. N. Connolly, Chairman; H. C. Barkhorn, A. W. Bingham, Max Danzis, J. H. Lowrey.

Necrology—Floy McEwen, Chairman; H. A. Tarbell.

Nominating Committee—E. G. Wherry, Chairman; E. W. Erler, B. H. Greenfield, A. C. Zehnder. Credentials—H. Roy Van Ness, Chairman; J. F. Condon, D. L. McCormick.

Membership—Linn Emerson, Chairman; W. H. Areson, W. H. Glass, H. H. Kessler, W. B. Mount, C. F. Rathgeber.

Automobile Emblem—Alfred Stahl.

Medical Milk Commission—E. G. Wherry, Chairman; Floy McEwen, C. F. Lehbach, A. R. Bianchi, T. W. Harvey, Jr., R. N. Connolly.

Maternal Welfare Commission—Carl H. Ill, President; J. N. Pannullo, Vice-President; W. P. Mount, Secretary; A. W. Bingham, A. R. Bianchi, R. J. Brown, E. W. Erler, B. A. Furman, H. B. Kessler, D. L. McCormick, R. T. Potter, N. G. Price.

Publication—J. H. Bradshaw, Chairman; R. H. Diffenbach, F. W. Pinneo, J. W. Gray.

Welfare—E. S. Sherman, Chairman; R. J. Brown, F. R. Haussling, J. B. Morrison.

Coöperation with State Society—J. F. Hagerty, Chairman; W. P. Eagleton, J. B. Morrison.
 County Aid to Hospitals—F. R. Haussling, Chairman; W. H. Areson, Paul Keller.
 Diphtheria Prevention—R. N. Connolly, Chairman; G. A. McLellan, B. J. Smith, E. G. Wherry.
 Illegal Practitioners—J. H. Lowrey, Chairman; R. N. Connolly, C. M. Robbins, E. LeRoy Wood.
 Radio Broadcasting—D. A. Kraker, Chairman; C. C. Beling, E. LeRoy Wood.
 Periodic Health Examinations—Chas. Englander, Chairman; F. A. Alling, C. V. Craster.
 W. Harvey, Jr., R. J. Mullin, C. R. O'Crowley.
 Woman's Auxiliary—B. A. Furman, Chairman; Paul Hosp, H. R. Van Ness.
 Member of Referees on Compensation Cases—D. A. Kraker.

GLoucester County

Henry B. Diverty, M.D., Reporter

The Annual Meeting of the Gloucester County Medical Society was held at the Woodbury Country Club, Friday evening, November 21.

A lecture by Dr. Charles C. Wolfert, of Philadelphia, on "Progress in Research on Cardiovascular Diseases" proved both profitable and a source of interest to his listeners.

Luncheon was served by Stewart Fred Bewkers, of the club.

The following is the list of newly elected officers: President, I. W. Knight, Pitman; Vice-President, James Hunter, Jr., Westville; Secretary and Treasurer, Ralph Hollinshed, Westville; Reporter, H. B. Diverty, Woodbury; Board of Censors, Hunter, Stout and William Pedrick.

Delegates to State Society: for 1 year, William Brewer; alternate, Chester I. Ulmer; for 2 years, E. E. Downs; alternate, Wilson Stout; for 3 years, Ralph Hollinshed; alternate, I. W. Knight. Members of Nominating Committee of State Society: E. E. Downs and Wilson Stout.

Board of Trustees: for 1 year, James Hunter; 2 years, William Brewer; 3 years, J. Harris Underwood. Essay Committee: I. W. Knight, Ralph Hollinshed and H. B. Diverty.

Delegates appointed to Atlantic County were: H. M. Fooder, W. J. Burkett and C. A. Bowersox; to Burlington County, Duncan Campbell, James Hunter and Paul Pegau; to Cape May County, James Hunter, H. B. Diverty and F. G. Wandall; to Camden County, H. B. Diverty, James Hunter, Ralph Hollinshed and B. A. Livengood, to Cumberland County, J. H. Underwood, S. F. Ashcraft and William Pedrick; to Salem County, S. F. Ashcraft, B. A. Livengood, H. W. Stout and Edwin Ristine.

The members present were: Duncan Campbell, Ralph Hollinshed, S. F. Ashcraft, William Brewer, A. B. Black, I. W. Knight, C. I. Ulmer, I. J. Stewart, H. W. Stout, O. A. Wood, J. H. Underwood, William R. Clements, B. A. Livengood, Edwin Ristine, James Hunter, E. E. Downs, Victor Barrows, H. B. Diverty.

Drs. Emma Richardson and Kline were present as Delegates from Camden County.

HUDSON County

E. G. Waters, M.D., Reporter

The regular meeting of the Hudson County Medical Society was called to order at 9:15 p. m.

Nov. 4, with the President, Dr. J. M. Cassidy, in the chair.

Minutes of the previous meeting were accepted as published in the Bulletin.

The president presented the following résumé of the meeting of the Executive Committee, held October 27.

In reference to the censorship of health talks of the Hudson County Tuberculosis League, the Executive Committee recommends that an advisory committee be appointed for this purpose.

In reference to the matter of the antidiphtheria campaign, brought up by Dr. Salmon, it is recommended that members of the Hudson County Medical Society correspond with the Board of Health and agree to give 3 injections of anti-toxin for \$6. It was the consensus of opinion of the Executive Committee that the membership get behind this matter, particularly on account of the economic situation.

In the matter of post-graduate study the committee agreed that post-graduate education is desirable, but that it should be a local proposition instead of a state matter, and that the instructors be chosen from among the local men. It was felt, however, that no action be taken until the Chairman of the State Committee had been heard from.

The Board of Censors reported favorably upon the following names: Drs. A. L. Smith, Logan S. Owen, Edward W. Luczynski and Henry A. Christian.

Dr. Wm. N. Barbarito presented the following resolution:

WHEREAS, the Board of Health has suggested coöperation of the Medical Society during their antidiphtheria campaign; and

WHEREAS, the Hudson County Medical Society wishes to be of public service to the community in a general health matter; and

WHEREAS, It is alleged that the Board of Health in New York believes that the average family prefers its own family physician when possible; and

WHEREAS, It has been rumored that the public has refrained from being attended by private physicians because of the fear of prohibitive or exorbitant fees; therefore

RESOLVED: That the members of this Society charge a fee of \$6 for the injections against diphtheria, during the antidiphtheria campaign.

RESOLVED, That the community be informed of this through the various means of publicity.

Dr. Piskorski questioned whether it was desirable to publish this in the newspapers.

Dr. Stout reported that 48,000 injections had been given last year and that at the time physicians were asked to limit their fee to \$10. He felt that it would make no difference to limit fees as most people would go to clinics, as they had in previous years.

Dr. Gordon spoke in favor of having the fee \$6 in order to discourage people going to clinics.

Dr. Shapiro quite forcibly favored the matter, and felt that this was an opportunity for the physicians to do something for themselves and wean the patients away from public institutions.

Dr. Alexander spoke of problems in the public health field of great interest to the medical profession as well as the public. He desired to co-ordinate efforts by means of an advisory committee, particularly relative to radio talks. He

felt that it would be desirable to have the Hudson County Tuberculosis League and the Hudson County Medical Society work together through the advisory committee.

Dr. Jaffin questioned the nature of the advisory committee and asked why it was suggested that men not connected with the Tuberculosis League be chosen for this committee. He felt that a member of both organizations should not be disqualified on this account.

Dr. Alexander explained that if this committee were composed of men not connected with the Tuberculosis League, they might feel freer to act, and that there would be no prejudice in their decision.

Dr. Cosgrove felt that this committee would infringe upon the Publicity Committee. It was regularly moved and seconded that this matter be referred to the Publicity Committee.

Dr. Shapiro remarked that this matter had been referred to the Publicity Committee last year. The motion was carried.

Dr. Cosgrove spoke on post-graduate instruction. He stated that the State Society Post-Graduate Committee was shortly to organize a course for the ensuing year. He would take cognizance of the desire to utilize local talent after plans had been formulated but would report back to our county society, which could then decide whether to enter into the state idea or arrange a course locally. He suggested that a local County Post-Graduate Committee be appointed.

It was moved that the County Society defer action until the report of Dr. Cosgrove had been received, and that a County Committee be appointed. Carried.

The following membership applications were received and referred to the Board of Censors: Drs. B. N. Schenker, Conrad M. Bahnson, Herman Jaffe, Jacob L. Mathesheimer, Otto H. Mustermann.

The following having been approved by the Board of Censors were declared elected: Drs. Edward W. Luczynski, 38 West 26th St., Bayonne; Alexander L. Smith, 2672 Boulevard, Jersey City; Logan S. Owen, 938 Hudson St., Hoboken; Henry A. Christian, 349 York St., Jersey City.

Dr. J. B. Morrison, Secretary of the New Jersey State Medical Society, read a comprehensive paper on the work of the State Society dealing with growth of the business side of the organization; how the extension of education services had grown to the extent that a considerable amount of money was needed for this work. He gave the cost of the various items connected with the work of the State Society, including the cost of administration through the offices of the Executive Secretary. The idea, in general, was to explain why it was necessary to have sufficient funds to work with, which was the reason for the apparently high dues of the County Society.

Dr. Morrison's paper, shortly to be published in full, is to be distributed to each member of the State Society.

Dr. Morrison received the thanks of the President for so kindly coming to Jersey City.

Reverting to "new business", the secretary moved, in view of the fact that the publicity connected with the antidiphtheria campaign would be in the nature of newspaper advertisements and possibly radio talks, the expenditure of certain sums of money would be necessary, that the publicity committee be authorized to make such

necessary expenditures for this work with approval of the Executive Committee. This motion was carried.

Dr. Harrison S. Martland, Pathologist of Newark City Hospital, and Chief Medical Examiner for Essex County, gave a most interesting discourse, assisted by lantern slides, on "The Office of the Medical Examiner, and Its Relationship to to Scientific Medicine".

All in all, the talk was highly scientific, practical and interesting, and held the attention of the members throughout the entire discourse.

After discussion by Drs. Hasking, Braunstein, Scott and D'Acerno, the meeting adjourned at 11:55—after a rising vote of thanks was given Dr. Martland.

Clinical Society North Hudson Hospital

J. Africano, M.D., Reporter

The regular meeting of the Clinical Society was held Tuesday, November 11, with Dr. Pearlstein acting as Chairman. Dr. Tannert read the hospital report for the month of October: Admissions, 257; discharges, 274; deaths, 22, of which 8 were medical, 8 surgical, 1 obstetric, 2 newborn, 2 gynecologic, and 1 pediatric; clinic cases 599, emergency cases 434, ambulance calls 91; 4 autopsies. The Hospital Campaign Drive plans and preparations from the standpoint of the Staff were discussed by Drs. Klaus, Roberts, D'Acerno, Kuhlmann and Tartaryan.

The following cases were presented by members of the Staff:

Dr. Selinger. Senile Cataract. Mrs. E. S., aged 62, was led into the clinic by her daughter. Examination revealed bilateral senile cataracts. The pupils reacted to light readily but vision was limited to light perception and fair light projection. On March 25, a preliminary iridectomy was done on the right eye and 8 weeks later, the lens was removed. With correcting glass V=20/40. She is now enabled to accomplish everything she had been accustomed to do previous to her loss of sight.

Dr. Luippold. Spontaneous Pneumothorax with Subcutaneous Emphysema. A. W., male, aged 47, bank clerk, came to us on the evening of October 16, complaining of a large swelling on the right side of the neck which had developed since morning (within 12 hr.); also a slight shortness of breath on exertion, and some weakness. His family history was excellent. He had never been sick for a day since early childhood except for a herniotomy two years ago. In July he suffered from a cold and he continued with a dry cough from that time on to the present and this was at times quite distressing.

Upon examination we found a man of medium size and build. Conspicuous was the large mass covering almost the whole right side of the neck—from clavicle to angle of jaw; it was uncomfortable but painless, and on palpation felt soft, yielding and crepitant, giving the unmistakable impression of containing air in and under the subcutaneous tissues. The chest on the right side lagged during respiratory movements; this was especially noticeable when forced. Auscultation disclosed an almost complete absence of breath sounds, vocal fremitus markedly diminished or absent, and a percussion note that was hyperresonant, or rather, that of a dull tympany. The left side of the chest was normal except that the area

of cardiac dullness extended a little toward the left. These findings warranted us in believing we were dealing with a complete pneumothorax of the right chest.

The patient was put to bed and by the next morning the swelling in the neck had completely disappeared. He was kept quiet and in bed as much as possible, but this was difficult because he insisted he was feeling quite well. The first roentgenogram showed the right lung almost completely collapsed; 3 weeks later another roentgenogram showed the lung slowly expanding and the air space gradually becoming re-sorbed; this is still more evident when the third plate (11 days later) is studied.

Undoubtedly rupture of lung tissue occurred during a spell of coughing, at which time an emphysematous bleb ruptured through the parietal pleura. This bleb was probably produced by cicatricial tissue following a previous tuberculous inflammation, as the radiograph showed old tuberculosis processes. That the rupture in the pleura was very minute would probably explain why there was no shock or extreme dyspnea, as with a sudden collapse of the lung. Slow filling of the pleural cavity was probably also facilitated by the nature of the valve-like rent of the pleura which caused it to open only on full inspiration, that is, under sufficient air pressure and to close for the rest of the respiratory cycle when the air pressure was less or negative in the lung. In these cases the expelled air from the tiny bronchioles may also at times find a path of slight resistance along the outside of the bronchioles, up along the larger bronchi, and out into the subcutaneous tissues above the supra-sternal notch into the neck; this is undoubtedly what occurred and accounted for the swelling in our case.

The prognosis in these cases is usually good, the tuberculous process having already been overcome—cicatrized, by the time the pneumothorax occurs. Occasionally there are recurrences of the same condition. The treatment is rest, fresh air and sunshine, nutritious feeding and tonics; that is, that of a potential or rather dormant tuberculous infection.

Dr. Justin called attention to the mildness of the subjective symptoms; absence of pain is a common occurrence, causing these cases to be overlooked; he cited a personally observed case of spontaneous pneumothorax, well after 10 years, in which the cause was perforation of the lung into the pleural cavity, the adhesions and thickening of the pleura acting as a protective.

Dr. Spalding stated that there was no evidence to show the absence of a pneumothorax before the occurrence of subcutaneous emphysema; most of the cases have a tendency to resolve themselves unless completely compressed, or unless there is rapid phthisis with rupture of a soft caseation where death might occur in a few minutes or a few weeks from stock and strain to the heart.

Dr. Dalven. Chronic Heart Disease with Unusual Complications. J. A., male, aged 30; admitted July 3, complaining of dyspnea, orthopnea, swelling of ankles and abdomen, pain in upper lumbar regions and cough. Family history: mother died of cancer of stomach; one sister died of pulmonary tuberculosis. Past history: childhood sore throats; no rheumatism nor chorea. No venereal history.

Began 3 months ago to complain of a dull

"pushing" pain beneath the sternum. This gradually became worse so that he consulted a doctor, who told him he had heart disease. Six weeks ago he noticed that he was voiding less in amount but more frequently—nocturia 2-3 times. Shortness of the breath on exertion. Three weeks ago noticed that his ankles and abdomen were swollen. At the same time he developed a cough, productive and worse in morning.

Bubbling râles over the right and left interscapular regions. Absent breath sounds at bases. Heart enlargement to the left. Systolic blow at apex which is transmitted to the left axilla. Slight arrhythmia and tachycardia. B. P. 130/100. Abdomen: definite evidence of fluid; liver enlarged to 6 fingers' breadth below the costal margin. Extremities: marked edema of both ankles and legs up to knees.

Diagnosis: Congestive heart failure; chronic myocarditis; mitral insufficiency; tachycardia; arrhythmia.

The patient remained in the hospital for 4 months, during which time many diuretics were used. At no time was he free of hydrothorax, hydropericardium, edema or ascites. The most interesting aspect of this case is the losing fight against an intractable edema, which, progressively worse, finally became a general anasarca and overwhelmed the patient.

Dr. W. J. Sweeney. An Unusual Pathologic Condition of the Ileum; Adenocarcinoma of the Ovary. White female, age 22, married, admitted September 12, complaining of pain in abdomen, constipation and vomiting. Menstrual history: Last period 4 months previous. Gravida 4; para 3; miscarriages 2. Two months previous to admission patient found it difficult to move bowels. Condition became worse, and had to resort to enema and cathartics. No bowel movement or gas for 4 days. Has vomited occasionally during past 2 months. Pain in abdomen began on the left side, radiates to the R. L. Q., sticking in character, intermittent and severe for the 2 days.

Physical examination; uterus enlarged, fundus at umbilicus; abdomen above and on either side of the mass distended, tympanitic on percussion; peristalsis is seen above the mass, in a horse-shoe shaped mass in the R. L. Q. The fetal heart is heard in the L. L. Q. Rectum filled with hard fecal material. Bimanual examination revealed fundus 3 cm. above umbilicus in left side of the abdomen; presented nodular masses, suggesting myomas. In the R. L. Q. a large mass could be palpated the size of a grape-fruit, which extended from the middle of Poupart's ligament down to the right fornix, reaching the base of the cervix, which was soft, 2.5 cm. long, and admitted the tip of finger. The internal os could not be reached. Diagnosis: Pregnancy complicated by multiple fibromyomas.

During the next 4 days the patient was distended, passed small amount of gas, and vomited occasionally. No voluntary movements of bowels. On Sept. 16, she signed her release and went home.

Readmitted to Dr. Pearlstein's service on Sept. 20 with the same complaints and findings. Dr. Pearlstein's diagnosis was pregnancy and intestinal obstruction due to a tuberculous condition. Condition grew worse and on Sept. 22 signs pointed to an acute intestinal obstruction. Consultation with the surgical department was held, and operation advised as a life-saving measure.

The findings were an obstruction at the lico-

cecal junction; small intestine firmly bound down to the posterior abdominal wall. Parts of the small intestine showed various sized fibrous plaques. The intestines above the obstruction were moderately dilated. Those bound down were so firmly adherent to the abdominal wall that it was impossible to dislodge them without tearing. The parietal peritoneum was studded with small masses, apparently tubercles. The right ovary was the size of an orange, gelatinous in consistency; the uterus was smooth; no fibroids seen or felt. The right rectus muscle markedly atrophied. Peritoneum very friable. The operation done was a right oöphorectomy and an ileostomy. Pathologic report on ovary was adenocarcinoma.

The patient aborted 2 days after operation. Obstetric progress uneventful, but the general condition became worse daily; vomited frequently. Colostomy working, but patient died on October 17. The death certificate was signed tuberculosis of ileum, as it was impossible to differentiate grossly between tubercles and carcinomatosis. The histologic sections showed no evidence of tuberculosis, but showed the wall of the cecum to be invaded by small glandular acini lined with anaplastic cells.

Autopsy findings: healed tuberculous lesion of the apex; right kidney showed acute pyelonephritis and the left cloudy swelling; entire mass of small and large intestines were matted together by fibrous adhesion; greater omentum was shortened and indurated and free in the abdominal cavity; parietal peritoneum about the cecum studded with minute military bodies; inferior surface of the diaphragm presented a similar appearance; mesentery presented frequent areas of induration which on section were fibrous and fatty; on the serosa of the cecum there was a nodular protuberance that measured about 2 cm. in diameter, which on section appeared like a cyst the central portion of which was filled with a firm, caseous-like material and a mucoid jelly-like substance. The histologic examination showed carcinomatosis, metastatic from adenocarcinoma of the ovary.

Dr. J. Africano. Differential Diagnosis of Carcinoma and Tuberculosis of the Intestine: The diagnosis between carcinoma and tuberculosis of the intestine is a difficult procedure, even at operation. As an early diagnosis is essential in either case, and because of the vagueness of the early symptoms, considerable reliance must be placed on the x-ray examination. In cancer, even in the early stages, careful roentgenologic studies rarely fail to establish a diagnosis—this includes the use of films, fluoroscope and barium enemas.

Yet, cases occur where shadows of the lesions of cancer in the region of the cecum are extremely confusing, and are mistaken for tuberculosis. Pirie states that "in a tuberculous subject, with symptoms suggestive of tuberculous cecum, if the cecum does not fill from 4 to 12 hr. after barium meal, when examined at intervals of about ½ hr., this want of filling confirms the diagnosis". Larimore has been able to detect early tuberculous infection of the cecum by fluoroscopic examination following a barium enema. The cecum, which may fill out normally, is hyperirritable and can be caused to empty itself completely by palpation; there is also present an associated inhibition of the ileum, which with the hyperirritability of the cecum, was found by Larimore only in one other condition, a large retroperitoneal sarcoma involving the right iliac fossa.

The course of carcinoma of the intestine is variable as to length of time: in the small intestine, where it is usually rapid, particularly in the duodenum, it lasts from a few weeks to a year, while cancer of the colon may be relatively chronic and occasionally persist for several years.

Growths of the intestine which do not cause early obstruction or functional digestive disturbances are seldom diagnosed before it is too late for radical treatment to give any permanent relief; hence a diarrhea of sudden onset in those of previously regular bowel habit should be explained, for this is the initial symptom in intestinal cancer in a considerable percentage of cases; hemorrhoids, and any evidence of blood or pus in the feces demand investigation. Likewise the symptoms of intestinal tuberculosis are vague and inconstant. Herrick divides the cases into 4 groups:

(1) Those progressing insidiously with indefinite symptoms—distention with occasional pain in the right iliac fossa; condition most frequently diagnosed as subacute or chronic appendicitis.

(2) Those simulating carcinoma: Symptoms of low-grade obstruction, blood and mucus in stools, palpable tumor mass, and secondary anemia.

(3) Those simulating acute appendicitis with acute abdominal pain associated with rigidity; the leukocyte count helps in the differential diagnosis.

(4) Those simulating acute ileus; this type of patient is usually never completely free of symptoms, and presents evidence of tuberculosis elsewhere in the body.

Dr. Kooperman. Ulceration with Perforation of the Ileum. Male patient, aged 54, was admitted to the hospital at 4 a. m. on October 8, with a history of having been awakened at 2 a. m. by a severe tearing pain in the epigastrium followed by continuous vomiting. On questioning the family, it was found that the patient had been complaining of sharp tearing pains in the left lower quadrant for the preceding 4 months. These pains generally came on 2½ to 3 hr. after eating and were accompanied by belching and some vomiting. The patient had also lost 40 lb. in the 4 months and was markedly constipated.

The abdomen was markedly rigid and board-like. Marked tenderness and rebound tenderness present throughout, which persisted in spite of administration of morphin gr. ⅓.

A diagnosis of perforated gastric ulcer was made. Upon opening the abdomen, 12 oz. of intestinal contents were found free in the abdominal cavity. Adhesions involved the stomach, omentum and a perforated hard nodule in the jejunum which was interpreted as a carcinoma. The perforation in the gut was closed with 00 catgut with considerable difficulty because of friability of tissue. There were also 6 other nodules present similar to the one that was perforated. The process involved about 18 in. of small gut. The stomach was examined and found to be free of pathology. Intestinal resection was not attempted because of the extensiveness of the process and the patient's condition. The condition of the patient through the operation was very poor and the postoperative condition was grave. He was sustained by clyses and intravenous glucose and kept free of pain by administration of

morphin, but he sank slowly and died on October 10.

Dr. Kooperman. Interesting Case of Ruptured Ectopic Gestation. Mrs. H. G., white, aged 21, was admitted to the hospital at 3 p. m. October 25, in profound shock. There was a history of amenorrhea of 7 weeks' duration, superceded suddenly on the day of admission by a severe tearing pain in the right lower quadrant, weakness, and collapse 3 hours before admission. Physical examination revealed a well-developed young woman, cyanotic, dyspneic, skin cold and clammy, pulseless, blood pressure unobtainable, too weak to speak. Chest was negative except for almost imperceptible heart sounds. The abdomen was rigid and there was rebound tenderness in the right lower quadrant. Diagnosis of ruptured ectopic was made, and adrenalin, fluids by vein and under the skin, thromboplastin, coffee and whiskey enemas, and morphin were given.

The patient was seen shortly after admission by Drs. Roberts and Kooperman, who concurred in the opinion that surgical intervention at the time would be fatal. The patient was watched closely all day but did not appear to react very much from shock. It was finally decided to give her a transfusion and then operate. Accordingly, the patient was taken to the operating room at 10 p. m. Blood transfusion of 580 c.c. of whole blood given. Laparotomy was then done. The ruptured right tube was clamped and resected and the abdomen closed. During operation, which took but 12 minutes, the patient was given 350 c.c. of saline intravenously, and after the operation 400 c.c. of blood. She made an uneventful recovery and was discharged 16 days after admission.

Dr. Barbasch. Fracture-separation of the Lower Femoral Epiphysis. C. M., boy, aged 10, was brought into the emergency room with the history of having been struck by an automobile. The left knee was enlarged to about 3 times normal. The patella and the distal end of the femur displaced medially. Skin over the area involved was markedly tense and there was an abrasion over the end of the proximal fragment. A large hematoma was present along the medial aspect of the knee. X-rays showed a fracture-separation of the lower femoral epiphysis, the fracture involving the metaphysis on the outer side; marked displacement of the fragments.

On the Hawley table, under general anesthesia, great traction was made on the leg, with counter-traction on the thigh, and the fragments approximated. X-ray picture taken after reduction revealed the fragments in perfect position and alignment. The leg was put in a spica cast and the patient was discharged 16 days after admission.

Case Report. J. H., male, aged 76, for the past 7 years had noticed frequency, followed by dysuria and difficulty in starting stream, the latter diminishing in size. The first attack of complete retention was 2 years ago, and he has had to be catheterized on various occasions since. One year before admission findings were frequency, dysuria, cloudy urine, residual 12 oz. Adenomatous hypertrophy of the prostate. He would not submit to cystoscopy. Prostatectomy was advised, but refused. I did not see him for a year when he returned, completely worn out from tenesmus, frequency, dysuria and lack of sleep. All this time he had followed religiously

the medications and bladder irrigations guaranteed by a physician as a positive cure.

He was admitted on March 17. Attempted cystoscopy was very unsatisfactory on account of profuse hemorrhage from the prostatic urethra, and extremely irritable bladder which would not retain any fluid. Faint vision of a mass was observed at the fundus, that had the appearance of a papillomatous growth. Several small diverticuli were seen. Suprapubic cystostomy was carried out under spinal anesthesia, primarily for the purpose of a 2-stage prostatectomy, drainage, and also to deal with a possible papillomatous growth of the fundus. When the bladder was opened, there was found a "Jack-stone" hanging from the fundus; this had given the impression of growth.

On March 31 the second stage of prostatectomy was done and the patient discharged as cured on April 21, with the wound healed, urine clear, no residual urine and perfect sphincteric control.

Dr. Hekimian passed around the unique specimen: a beautifully preserved dark red stone with coral-like projections radiating from a central nucleus, 15 mm. in diameter.

Bayonne Hospital Clinical Conference

Maurice Shapiro, M.D., Reporter

The regular meeting of the Clinical Conference of Bayonne Hospital was held Monday evening, November 3, at 9.30 p. m. Meeting called to order by Dr. Donohoe, with Dr. Shapiro as secretary. Minutes of the previous meeting were read and approved.

Dr. Shapiro presented a case of "Granuloma Inguinalis". Male, colored, 70 years of age, with an ulcerating lesion around the base of the penis and part of the scrotum. History of a small pimple 3 years ago, which gradually spread. Ulceration, granulatous with considerable sloughing and characteristic odor. The laboratory has been unable to demonstrate any Donovan bodies. The patient is receiving tartar emetic and local treatment but is not responding satisfactorily. Will report again later.

Dr. Madaris discussing this case remarked that he has seen only one case in the inguinal region with concurrent lues and that patient died of hemorrhage.

Dr. Lipshutz reported a case of "Diphtheria of the Ears". Child 4 years of age. On second day of illness the ears are found bulging; both drums incised by Dr. Thum; scant discharge. Following day, membrane from the drums was cultured and showed positive diphtheria. Cured by using only 20,000 units of antitoxin.

Dr. Sklar reported on a man, 68 years of age, with multiple aneurysm of the legs. This man came complaining of swelling of the left leg. Had been told by several physicians that he had heart trouble, though he was not dyspneic nor did he have to quit work. Examination: pupils fixed; numerous decaying teeth; heart enlarged to the left with a very marked throb and systolic rales at the base; B. P. 150/50. On the left leg over the popliteal space there was a large pulsating mass, with swelling from the knee to the foot. On the right side a small mass in the region of the subclavian. Wassermann 1 plus. Syphilis with aneurysm was the diagnosis.

Dr. Penchansky reported a case from the Obstetric Department. A woman aged 38, para 4 and in labor 3 days. Examination revealed fully dilated cervix with no engagement of the head, which appeared to be larger than normal. There were no fetal heart sounds, and diagnosis of "fetal monstrosity" was made, and craniotomy was performed.

Dr. Thum made an informal report on a case of "aberrant thyroid" in a girl 25 years of age, who had been treated 4 years for chronic deafness. She came into the office complaining of increase in deafness and change in voice with much difficulty in deglutition. Examination of the posterior glossal region revealed a large mass at the base of the tongue covering the epiglottis. Incised with the idea that this was a cyst; no fluid but profuse bleeding. Lifted this mass and found that it was pedunculated. It was snared off and sent to the laboratory for examination. Report was an aberrant thyroid.

Dr. Ferenczi, J. C., colored, aged 36 years, was admitted to the hospital October 1, with complaint of precordial distress, moderate dyspnea, hoarseness and an unproductive cough. Condition began about 6 months ago with cough and hoarseness. Two months later he suffered attacks of paroxysmal pain in the precordial region; radiating to his left arm, left scapula, and left side of the neck. These attacks occurred about every 2 hours and were characterized by great severity and a sensation of smothering, with a constricted feeling in the chest. About 12 to 15 years ago patient had a sore on his penis. For the past 5 months had been receiving antiluetic treatment in the hospital dispensary.

Heart was enlarged but no murmurs heard at the apex; second aortic sound markedly accentuated. Blood pressure 110/90 in both arms.

The left lower lobe showed diminished vocal fremitus, diminished breath sounds, subcrepitant and crepitant râles.

Temperature on admission 102° F; pulse 88; respirations 24. Abdomen, negative.

Thoracic radiograph showed a parenchymatous infiltration of the left lower lobe, evidently chronic in character and accompanied by fibrotic changes which had pulled the heart to the left. The heart showed a widening of the arch with a fusiform dilatation of the ascending and descending arches, probably aneurysmal in character; the aortic arch about 4 in. in width. The lung condition probably syphilitic in character. The patient had a septic temperature for 9 days; temperature ranging from 102° to 99°, including rise to 104.2° on the day of admission. By October 18 the lung began to show changes; heart sounds became vesicular, and only a few râles were heard. October 22 the lungs were clear. Anti-luetic therapy was instituted. Patient was discharged in an improved condition on October 31.

Jersey City Hospital Staff Joseph Binder, M.D., Reporter

The regular monthly meeting of the Medical Staff of the Jersey City Hospital was held on Thursday, October 9, at 9 p. m., in the Out-Patient Department of the Hospital, under the presidency of Dr. Sprague. There were present: Drs. O'Hanlon, Burke, Sprague, Binder, Pollak, Winters, Santosky, Commorato, White Fineberg, C. B. Kelly, Rundlett, Houghton, Benjamin,

Meehan, Brophy, Braunstein, Jaffin, J. Connell, Perkel, Cohen, Flechtenfeld, Siegler, Schnecken-dorf, E. Connell, residents and internes.

Dr. Commorato reported 2 cases of "Adenitis of Right Submaxillary Lymph Gland, due to Cancer of the Tonsils".

Case 1. Male, 35 years old, gave history and findings of bilateral pulmonary tuberculosis; pleurisy with effusion 8 years ago; admitted with marked ulceration of right tonsil, and enlargement of right submaxillary gland. Differential diagnosis was made between cancer and tuberculosis of tonsil. Direct smear was negative for tuberculosis, and biopsy revealed an epithelioma or carcinoma of right tonsil. Treated with radium by Dr. Faison.

Case 2. Male, 60 years old, admitted with enlarged right submaxillary gland, presented marked generalized arteriosclerosis, severe dental and oral sepsis, and enlarged right tonsil which was shown to be the cause of the adenitis. Biopsy showed cancer of the right tonsil.

Two cases of "Abdominal Wall Tumors" were also presented by Dr. Commorato.

Case 1. Female, aged 25, admitted with mass in right iliac region, sausage-shaped, not tender, and freely movable. No loss of weight. All laboratory findings and radiograph were negative. Provisional diagnosis: lymphosarcoma. Laparotomy revealed a dermoid tumor attached to the right rectus sheath; a fibrosarcoma of the muscle and fascia.

Case 2. Male, age not given, admitted with mass in right iliac fossa, not tender. Tentative diagnosis of broken down tuberculous glands, but findings were negative for tuberculosis.

Examination showed mass to be irregular and nodulated, fixed, with history of gradual increase in size. Its location was suggestive of appendiceal abscess, tuberculous glands or sarcoma.

DISCUSSION

Dr. Burke: Operation showed the tumor mass to be the size of a small grape fruit, with the cecum and appendix plastered on it. The tumor was extraperitoneal with a tag of omentum adherent to its upper angle. This broke off readily and a bloody clear serum gushed out. Two fingers inserted into this opening showed that the mass was cystic and that the pelvic glands were calcified in the area of the cecal mesentery. The patient's condition was so poor and the mass so friable that it was thought best to take only a biopsy piece, and to make no attempt at removal. Attempts to mobilize the cecum resulted in free bleeding. The cystic mass was packed and drained. Biopsy report: fibrosarcoma.

Dr. Commorato also presented 2 "uremic cases", and one case of "Aneurysm of the Abdominal Aorta".

Case 1. J. H., male, 25, well, except for weakness and inability to stand, gave history that since diphtheritic attack 12 years ago he would become edematous each time he had an acute infection. Provisional diagnosis of chronic interstitial nephritis with impending uremia. Laboratory findings: Wassermann, negative. Blood chemistry: N.P.N. 200; urea 92; CO₂ 52; chlorides 440; uric acid 6.8; creatinin 6. Systolic blood pressure 175. Marked nephritic retinitis.

Under treatment the N. P. N. became 150 and the creatinin 5. Mosenthal test showed fixation and poor concentration, with specific gravity of 1.010; and microscopic examination, many gran-

ular casts. R. B. C. 3,000,000; Hm. 50%, the evidence of secondary anemia.

Diazo reaction of the blood serum was strongly positive, showing evidence of marked destruction of renal tissue. Prognosis extremely grave.

Patient had sudden seizure of uremic convulsions and died despite all treatment.

Case 2. C. H., male, aged 60, admitted with provisional diagnosis of inoperable cancer of the stomach, sepsis and generalized arteriosclerosis. He was markedly drowsy. Blood chemistry: N. P. N. 225; creatinin 6.7; low CO_2 ; sugar 105; P. S. P. test—zero %. Diazo reaction of serum was strongly positive. Patient died 9 days after admission.

These cases were presented to stress the prognostic value of the Diazo blood serum test.

Case 3. Male, aged 52, admitted complaining of pain in the back radiating to the legs for the past 2 weeks. Physical examination elicited evidence of aortitis, and palpation of the epigastric region showed a pulsating mass. Wassermann plus 3. Blood pressure 130 systolic. Radiograph showed shadow of fusiform enlargement of abdominal aorta with characteristic erosion of anterior surfaces of the eleventh and twelfth dorsal and first lumbar vertebrae.

Eye grounds showed sclerosis, old hemorrhages and chorioretinal degeneration.

This patient was exhibited and all present examined and palpated pulsating tumor (aneurysm).

Diagnosis: Aneurysm of abdominal aorta.

Dr. Jawn presented a case of "Aneurysm of the Thoracic Aorta" which was to be differentiated from mediastinal tumor. Male, previously admitted to Jersey City Hospital 4 years ago, gave history of moderate pain in chest and dyspnea of 10 years' duration. Radiograph at that time showed a tremendous shadow in mediastinum. Wassermann negative, and physical examination showed no pulsation. Diagnosis: posterior mediastinal tumor.

This patient had been admitted to the hospital several times during the past 4 years. For the purpose of differential diagnosis between mediastinal tumor and aneurysm, the following should be borne in mind:

(1) Relation of the pathologic shadow to the aorta and deviation of esophagus (by lateral x-ray view and fluoroscopy).

(2) The Law of Thoma, that the aorta in aneurysm is dilated in all its parts. If not so, then not of luetic origin.

(3) Nature of the shadow. This may not be helpful, because there may be a series of aneurysms, making shadow appear like irregular mediastinal tumor mass.

(4) Pressure on trachea, bronchus or phrenic nerve. Either may do so.

(5) Most pathognomonic of aneurysm is the erosion of the anterior surface of the vertebral bodies. The discs are not involved.

During his last stay in the hospital, patient developed a streptococcal throat, lobar pneumonia of the right middle lobe, and died.

Autopsy specimen showed the aneurysm made up of a large, laminated, blood clot with an unobstructed channel for maintenance of circulation in the aorta, and also erosion of the upper dorsal vertebrae.

Dr. Fineberg reported a case of "Diabetic Ulcers of the Legs Responding to Insulin Therapy". Female, middle-aged, admitted June 1930, with history of diabetes of 12 years duration, and

having been on diabetic insulin treatment; 5 months prior to admission, went off the diet; 3 months ago, noticed small "pimples" on both legs; these spots becoming larger until they coalesced and formed 1 large ulcer on each leg from toes to knees. She had been treated with indefinite diet and small doses of insulin without any response.

The insulin was gradually increased until she was getting 50 units 3 times a day. As soon as ulcers showed healing, the insulin dosage was gradually cut down, and on September 12, she was taken off insulin. She became sugar-free and ulcers cleared up almost completely. Radiograph showed calcification of the arteries of both legs.

There are many reasons for presenting this case. First, it is one of the severest cases of diabetes complicated by arteriosclerosis, diabetic ulcers, and skin gangrene of moist type, we have seen that has responded to medical treatment. We wish to stress the results of lack of early diagnosis and hesitancy in instituting energetic treatment. It is well to be always on the lookout for arteriosclerosis in any diabetic around or past middle age, because 50% of our complications are accounted for by arteriosclerosis, 8% of these being gangrene. Patients complaining of coldness of extremities, intermittent claudication, numbness, tingling, and complete or almost complete absence of pulsations in the dorsalis pedis arteries, should receive prompt treatment to combat the ischemia. This is best accomplished by rest, Buerger's series of exercises, hot and cold baths, and absolute cleanliness. The formation of furuncles, ulcers and gangrene in the diabetic is undoubtedly dependent in part upon the arteriosclerosis, and also upon the polyuria, with its resultant desiccation and dryness of the skin. The polyuria is overcome by treating the diabetes, by correcting the glycosuria and the forcing of fluids to make up the fluid loss, strict adherence to the diet, and the liberal use of insulin. This latter, of course, is given to the limit of the patient's tolerance, and as soon as ulcers show signs of clearing up, insulin is gradually reduced.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Annual Banquet of the Mercer County Component Medical Society was held at the Carteret Club on the evening of November 12, President Vanneman presiding.

Applications of Dr. Robert Applestein, Charles C. Cohen, John J. Haney and F. A. McGuigan were read and referred to the Membership Committee. The application of Dr. Jas. L. Blanton was referred to the Biographic Dept., of the A. M. A. in compliance with the By-Laws.

Dr. G. N. J. Sommer, President of the State Society, made an earnest appeal for support of the Woman's Auxiliary, setting forth the many vital reasons for such support and officially requesting, sincere coöperation on the part of every member of the society.

Rev. Gill Robb Wilson, recent National Chaplain of the American Legion, addressed the society on "Some of the Problems, Economic and Social, Confronting the Medical Man."

Dr. J. B. Morrison, State Society Recording Secretary, gave a most comprehensive résumé of the cost of educational work now being carried by the State Society.

Members and their guests to the number of 75, enjoyed the elaborate banquet prepared in a most appetizing manner.

MIDDLESEX COUNTY

William C. Wilentz, M.D., Secretary

The regular monthly meeting of the Middlesex County Medical Society was held on November 19, at the County Vocational School in New Brunswick, with Dr. Brown presiding. The minutes of the preceding meeting were read and accepted.

Application of Dr. Arthur Marshall Smith was received and referred to the Membership Committee.

A motion was made by Dr. Nafey and seconded by Dr. McKiernan that the action of the society at the last meeting in reference to admission of Drs. Boulden, Fine, Ervin, Cooper, Falcone, Goldberg and Howell into membership in this society be rescinded, as their applications were not previously presented to the society. This motion was passed. Dr. Nafey then made another motion that they vote on these applicants. This motion passed and Drs. Boulden, Fine, Cooper, Falcone, Goldberg and Howell were properly elected.

The society received a letter from the Essex County Medical Society relative to an obstetric course which it is sponsoring. A communication was also received from Mrs. Hofer, thanking the society for the resolutions sent on the death of her husband.

Dr. Nafey, of New Brunswick, spoke on "Radium and Its Use in Some Gynecologic Problems". The paper was very well presented and thoroughly enjoyed. Drs. Klein, Rothchild and Spencer discussed the paper. A motion of thanks was voted to Dr. Nafey.

Medical Section Rutgers Club

J. H. Rowland, M.D., Secretary

The regular monthly meeting of the Medical Section of Rutgers Club was held at the Elks' Club, New Brunswick, on Friday evening, November 21, at 9 p. m. There were about 30 members, friends and guests present.

There being no business to transact, the regular speaker of the evening was promptly introduced. Dr. Tirman, of Brooklyn, who is associated with the Post-Graduate Hospital of New York City, gave a very instructive talk on "Mechanism of Cardiac Arrhythmias". The talk was characterized by its simple and complete presentation. The important features were a brief and concise consideration of physiology of the heart, recognition of various forms of arrhythmia, the differential diagnosis, and treatment. The talk was appreciated by everyone present.

The meeting adjourned at a late hour, after refreshments were served by the hosts, who were Drs. Fagan, Feher, Faulkingham, and Forney.

MONMOUTH COUNTY

W. Von Oehsen, M.D., Reporter

The November meeting of the Monmouth County Medical Society was held at the Garfield-Grant Hotel, Wednesday evening, November 19, with the president, Dr. James Fisher, in the chair.

Dr. William Herrman reported, as a member of the State Society Board of Trustees that it may be necessary to change the date of the annual meeting, which is to be held this year in Asbury Park. The consensus of opinion of the members present favors a meeting at the end of May rather than a September date.

A communication was read from the State Board of Medical Examiners relative to inspection of the Dr. E. C. Hazard Hospital, School of Midwifery, which had applied for approval. A committee consisting of Drs. R. A. MacKenzie, Joseph Ackerman and D. F. Featherston was appointed to meet with a committee from the State Medical Society and the State Homeopathic Medical Society to make this examination.

It was moved by Dr. Stanley Nichols, and carried, that the Monmouth County Medical Society was not in favor of the State Board of Medical Examiners recognizing any hospital school of nursing, or midwifery, that was not a hospital recognized by the Hospital Committee of the American College of Surgeons.

Dr. D. F. Featherston reported on a meeting of the State Secretaries and Reporters which was held in Trenton on November 5. The society was in favor of the organization of Councillor District meetings and expressed willingness to enter into this organization with Ocean, Burlington and Camden counties.

It was voted to make an effort to revive the Woman's Auxiliary and a committee composed of Drs. William Herrman and Samuel Hausman was appointed to bring this about.

Drs. J. C. Clayton and W. H. Fairbanks were appointed to serve on a committee to make arrangements for the Annual Meeting to be held in December.

A Nominating Committee, composed of Drs. Walter Gosling, Byron Blaisdell and Samuel Hausman was appointed.

The application of Dr. Emmerson Haines, of Asbury Park, was read and referred to the Board of Censors. The Censors requested that the application of Dr. Nelson Douglas, of Manasquan, be laid over for 1 month.

The scientific session was under the care of Drs. W. G. Herrman and Phillip S. Avery. Dr. Herrman reported an interesting case of "Sarcoma Resulting from Ingestion of Radium" in a patient who had 13 years before worked in a factory painting luminous watch dials. Dr. Avery reported 2 cases of "sarcoma of the lung" which were discussed by Drs. Frank Altschul and Joseph Ackerman. The final case was one of "periarteritis nodosa", which was reported from an x-ray point of view by Dr. Avery, and from a clinical point of view by Dr. J. Wiener.

A buffet lunch was served.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A special meeting of the Morris County Medical Society, to which were invited the societies of Hunterdon, Sussex and Warren Counties, was held at the New Jersey State Hospital at Greystone Park, on Thursday evening, November 13.

Recently elected President Sutphen had the pleasure of presiding over a gathering of about 60 members and guests; a gratifying attendance in view of the specialized character of the meeting indicating a wholesome interest on the part of the general practitioner.

President Sutphen introduced Dr. A. J. Casselman, of the Venereal Disease Bureau of the State Department of Health, observing that we were fortunate in having such a competent specialist to tell us all about syphilis and how to control and cure it.

Dr. Casselman's subject was: "A Demonstration of the Methods of Administering the Newer Drugs for Treatment of Syphilis, including Bismuth, Compounds of Arsphenamin, Arsanilic Acid and Stovarsol, in Solution and in Oil." His interesting address and demonstrations were prefaced by the statement that they were chiefly intended for the general practitioner who should take more interest in the treatment of syphilis; that most of the newer drugs are in such form that general practitioners can use them; designating as the simplest drugs to use intravenously, neo-arsphenamin and the different forms of bismuth supplied as insoluble and soluble preparations; that there is no difference between these except that the soluble preparations are the more expensive; cautioning against use of stovarsol and other such intramuscular drugs because they are painful and the patient will not continue treatment long enough; that he uses iodides in every case, in all stages, either intravenously or by mouth. He did not believe, with some other authorities, that mercury has any place in the present day treatment of syphilis; bismuth has the same therapeutic effect as mercury but does not injure the kidneys. He thought that the general practitioner should not try to become a specialist in the treatment of syphilis, nor in its laboratory diagnosis, and should not attempt to do dark field examinations which can be better made in a special laboratory. Further, the malarial treatment of syphilis should be confined to the State Hospital.

Discussion was taken up by Drs. Lathrope, Curry, Christian, Young, Pollard, Krauss, Frost, Thomas, Ward Collins, F. Grendon Reed, Mial, Ranger and Sutphen.

The meeting was followed by acceptance of an invitation from Superintendent Curry to partake of refreshments, which were enjoyed in the cafeteria.

OCEAN COUNTY

George W. Lawrence, M.D., Reporter

The annual meeting of the Ocean County Medical Society was held at the Elks, Lakewood, New Jersey, November 13, at 6 p. m., with the following members present: Drs. Towbin, Goldstein, Swain, Herbener, Brower, Hilliard, H. Disbrow, V. M. Disbrow, Willis, Woodhouse, Bunnell and Lawrence.

After partaking of an elaborate dinner, a business meeting was called to order at 7.10 p. m. by President Towbin. Minutes of previous meeting were read and approved.

Application for membership of Dr. William E. Dodd, of Beach Haven, was read and referred to Membership Committee. Report of the Membership Committee on application of Dr. J. Robert Obert, of New Egypt, was held over until the next meeting.

Report of the Treasurer showed a balance of \$263.19..

A motion was adopted that Dr. Ralph Jones' resignation be accepted.

The following officers were reelected for the ensuing year: Dr. Adolph Towbin, President; Dr.

Blackell Sawyer, Vice-President; Dr. Alfred Woodhouse, Secretary; Dr. Frank Brower Treasurer; Dr. George W. Lawrence, Reporter.

Delegates to the State Society 1 year, Dr. V. M. Disbrow; 2 years, Dr. Eugene Herbener; 3 years, Dr. Fred Bunnell. Alternates, Drs. Theodore Thompson, A. Goldstein and S. Dennison.

Membership Committee, Drs. Thompson, Dennison and Woodhouse.

It was further voted that 4 meetings be held during the ensuing year. There were discussions on various subjects but no paper was read. Upon adjournment, a meeting of the Staff of the Paul Kimball Hospital was held with President George W. Lawrence in his chair; Dr. Fred Bunnell is Secretary. This was a very informal meeting and it was decided as soon as the Trustees accepted the proposed Constitution and By-Laws of the Staff another meeting would be held for further organization. This meeting was adjourned at 9 p. m.

PASSAIC COUNTY

Frank W. Ash, M.D., Reporter

The November meeting of the Passaic County Medical Society was held at the Health Center, Paterson, November 13, at 9 p. m. Dr. J. P. Morrill presided, and 45 members were present.

After reading of the Censor's report the following men were elected to membership: Dr. Harold W. Laauwe, and Dr. W. C. Cantrell. The application of Dr. Jacob Warren was referred to the Censors.

The Scientific Program was as follows:

Dr. L. E. DeYoe—Large Full Thickness Skin Grafts.

Dr. D. H. Mendelsohn—Spreading Gangrenous Infection of Abdominal Wound.

Dr. N. M. Dingman—(1) Abdominal Testis with Torsion of Cord. (2) Cholechooduodenostomy for Traumatic Stricture of Common Duct.

Dr. A. G. Markel—Electrocardiographic Studies: (1) Coronary Artery Disease. (2) Myxedema.

Dr. F. W. Ash—Neurofibromatosis (Von Recklinghausen's Disease).

Each of the essayists exhibited patients demonstrating conditions described.

These cases provoked much interesting discussion.

SUSSEX COUNTY

F. P. Wilbur, M.D., Secretary

The 101st Annual meeting of the Sussex County Medical Society was held at the Sussex Inn, Sussex, on Tuesday, Nov. 11. Report of the Secretary read and approved. Report of the Treasurer read and approved.

Dr. Coleman discussed the question of applying to get Sussex County replaced in its former Councilor district.

Dr. Blase Cole, as Chairman of the Public Relations Committee, reported progress.

Dr. George Lathrope, guest speaker of the evening, read a paper, illustrated with lantern slides, on "Chronic Typhilitis as a Cause of Failure in Operations for Chronic Appendicitis".

Dr. Young discussed the pathology of the condition.

Dr. R. R. White presented radiographs of a complete transposition of the viscera; 1 of the

chest, and of a barium meal and a barium enema.

The following officers were elected for the coming year: President, B. W. Roy, Sussex; Vice-President, Martin Quirk, Newton; Secretary, F. P. Wilbur, Franklin; Treasurer, T. R. Pooley, Newton; Reporter, F. H. Morrison, Sussex; Delegate for 3 years, F. P. Wilbur; Member of Nominating Committee, F. P. Wilbur.

UNION COUNTY

Summit Medical Society

W. J. Lamson, M.D., Secretary

October Meeting

The regular meeting of the Summit Medical Society was held at Wallace Pines, Tuesday, October 28, at 8.30 p. m., with Dr. Wolfe entertaining. Owing to absence of both the President and Vice-President, Dr. Wolfe occupied the chair.

Present: Drs. Bensley, Burritt, Byington, Disbrow, Hallock, Johnston, Krauss, Lamson, Lawrence, Larrabee, Macpherson, Meeker, Moister, Reiter, Tidaback and Wolfe, and 7 guests.

Minutes read and approved.

The paper was read by Dr. Lawrence on "Diagnosis of Upper Abdomen Diseases". The gall-bladder might almost be called "the appendix of the upper abdomen", on account of similarity of pathologic conditions. It offers an analogy, also, to the tonsils, in being the first portal of attack in the infections of liver and pancreas. Pain and tenderness are the first symptoms of gall-bladder trouble, but acute infections are rarely fatal, and should be allowed to subside before operative intervention is undertaken.

Lesions of the upper abdomen are more difficult to diagnose than those of the lower abdomen. Pancreatic disease, especially, presents many problems, but as a general thing infection originates in the gall-bladder and travels backward through the duct of Wirsung to the pancreatic head. The most important factors in diagnosis are history, location of the pain, and findings by palpation.

The paper was discussed, by Drs. Krauss, Thomson, Byington and Moister.

Dr. Bensley gave the society a pleasant treat by showing motion pictures taken in Canada last summer on a fishing trip in which he, Dr. Krauss and Dr. Steuart participated.

November Meeting

W. J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, November 25, at 8.30 p. m., Dr. Johnston entertaining, and President Smalley in the chair. The members present were: Drs. Allis, Bensley, Bowles, Burritt, Byington, Campbell, Disbrow, Eason, Johnston, Krauss, Lamson, Larrabee, Macpherson, Meeker, Meigh, Milligan, Moister, Morris, Pollard, Prout, Smalley, Tator and Tidaback, and guests. The minutes were read and approved.

The paper was read by Dr. T. R. Ford, of Fair Oaks Sanatorium, on "The Neuroses". Neuroses are caused by a discrepancy between desires and their fulfillment, and the conflict due to this unsatisfied mental state results in various types of fantasies and repressions. The neurosis is, therefore, a wishfulfilling mechanism. This con-

flict begins very early in life, and soon becomes a part of the subconscious ego.

The neuroses are mainly of 3 types: (1) neurasthenia, due to a condition of nervous exhaustion; (2) anxiety neuroses; and (3) hypochondriasis, in which the symptoms are intensified, and largely connected with the gastro-intestinal tract.

These cases require careful physical examination, with correction of any defects found, before psycho-analysis is employed. Dr. Ford described the technic of psycho-analysis, which plays an important part in the cure of the neuroses, and emphasized the value of the information obtained from the patient's dreams, as indicating his subconscious maladjustments to his environment. He considers the Freudian hypothesis a very valuable aid in the correct interpretation of the mental picture.

In discussion, Dr. Prout said that the personality of the physician was of the greatest importance in handling these cases. He must get the patient's whole confidence, and be prepared to analyze symptoms sympathetically and carefully, even though it be a protracted and tedious matter. Dr. Krauss called attention to the neuroses of early childhood, due to the strain and fatigue of present day life as they form the basis of the chronic neuroses of later life. Dr. Sims, of the new Veterans' Hospital for Mental and Nervous Diseases at Millington, also discussed the paper, as did several others.

Adjourned. Refreshments.

Westfield Medical Society

Frederick A. Kinch, M.D., Reporter

The Annual Meeting of the Westfield Medical Society was held at the home of Dr. Lowell on October 14. The paper of the evening was read by Dr. Joseph B. Harrison, who chose for his subject: "The Doctor and Business". The essay showed the lax business methods some practitioners use and urged doctors to conduct their profession on a more business-like basis, keeping in mind always the high ideals of professional standards.

Election of officers resulted in the choice of the following: President, L. H. Salvati; Vice-President, M. E. Lowell; Secretary-Treasurer, L. H. Legett, Jr.; Comptroller, C. T. Decker.

The treasury showed a comfortable balance on the right side of the ledger. After the business meeting, refreshments and a social hour followed.

The November meeting was held on the eleventh, at the home of Dr. R. G. Savoye. Routine business was transacted. Dr. Salvati read a very interesting paper on "Tetanus".

While partaking of refreshments, a spirited and earnest discussion was entered into over the "environment and psychology of the school child."

Obituaries

ADSIT. Noble H., for the past 42 years a practicing physician at Succasunna, died at his home on November 22, 1930, following an illness of 2 weeks due to pneumonia.

Dr. Adsit was 70 years old on the Monday preceding his death, having been born at Pottsdam, N. Y., on November 17, 1860. He located at Succasunna shortly after completion of his medical preparation and soon became active in the civic interests of the community. For many years he

was a member of the Board of Education but had always been interested in the educational facilities of his neighborhood.

Dr. Adsit was made a Mason on February 18, 1891, by Acacia Lodge, No. 20, and in 1895 was elevated to Master of the Lodge, serving that and the following year. At the time of his death he was Vice-President of the Past Master's Association of Acacia Lodge. He was also a member of Piute Tribe, Red Men, and the P. O. S. of A.

BAIRD, David, aged 61, died in the Burlington County Hospital on November 7, 1930, after a short period of illness.

Dr. Baird had practiced in Florence, Burlington County, for 35 years and was active in many community affairs. A widow and 2 sons survive.

BECKWITH, John F., Atlantic City's first beach surgeon and for 22 years its police surgeon, died shortly after 5 p. m. Nov. 17, 1930. He was 67 years old.

Dr. Beckwith retired as police surgeon in January, 1929, and was granted a pension and the singular honor of appointment as "honorary police surgeon". He was in fairly good health until last Saturday, when he suffered an attack of angina pectoris.

Dr. Beckwith is credited with originating the idea for a beach hospital. At first it was a tent equipped with a first aid cabinet. High water menaced the tent and so many people crowded about it when a rescued man was being revived that it hampered the guards and the doctor. Dr. Beckwith had a strong platform built and the tent reared upon it. There was better and more complete equipment. That was in 1905. The next year a hospital tent was established at Mississippi Avenue, and some time later tents were raised at Chelsea and Maryland Avenues.

FRANCKLE, C. S., President of the Cumberland County Medical Society, died in Jefferson Hospital, Philadelphia, Nov. 15, 1930. He was stricken with a heart attack after he had finished an operation in the Millville Hospital on the morning of October 21, and his condition had been critical ever since. Last Wednesday he was moved from his home on North High Street to the Philadelphia Hospital. It was the second attack suffered by the doctor. Last June he was suddenly stricken ill and that time it was thought that he would die, but he recovered and he was able to resume his practice.

Dr. Franckle was born in Glassboro, his parents being Lewis and Mary Franckle. They removed to Millville when he was still a baby. He was graduated from Millville High School and from the College of Physicians and Surgeons, in Baltimore, at the age of 22 and began practicing medicine here that same year. He was married in 1903 and a few years later erected the home he has since occupied at 425 North High Street. He was one of South Jersey's best known physicians and was always very attentive to his practice, never having taken a vacation since he hung out his shingle, and it may be a lack of recreation that broke down his health.

NEVIN, Joseph A., died Nov. 15, 1930, after an illness lasting 4 months.

Born in Jersey City in 1879, Dr. Nevin, after attending private and public schools in Jersey

City and the Peekskill Military Academy at Peekskill, was graduated from Stevens School at Hoboken in 1898. He was graduated from Lafayette College with the degree of Bachelor of Science in 1902 and began his medical studies at the New York Homeopathic Medical College. After graduating he practiced in Flower Hospital, that city, for a year. In 1907 he joined his father, the late Dr. J. Lawrence Nevin, at the family home in Bowers Street where he carried on a large practice until his illness this summer.

WISMAR, W. F., of Union City, N. J., formerly for many years an active practitioner in Newark, died October 27, 1930, after an illness of several months' duration. Dr. Wismar was 57 years of age, and is survived by a widow, 1 son and 1 daughter.

WOLFS, J. F., medical director of the New Jersey Bell Telephone Company, and long a well-known surgeon in this vicinity, died Nov. 14, 1930, after illness of several months at his home, 258 Ridgewood Avenue, Glen Ridge. Formerly he lived at 3 Leslie Street, Newark.

Dr. Wolfs was chief surgeon of the Western Electric Works, Kearny, and an attending surgeon of Newark City Hospital, St. Barnabas' Hospital and the Babies' Hospital. For many years he was a member of the staff of St. Michael's Hospital.

He was born at Ilion, N. Y., in 1881 and was graduated from Long Island College Hospital in 1905. He came to Newark in 1908 after study abroad and had practiced here since.

Dr. Wolfs was in active service in the World War in the Argonne and Meuse with the 113th Infantry and was an active member of the Military Order of Foreign Wars and the American Legion.

In 1916 Dr. Wolfs saw service as a major on the Mexican border with the First New Jersey Infantry Regiment. Prior to his death he was a colonel of the Medical Reserve Corps. He was made medical director of the telephone company when the department was established October 1, 1927.

RESOLUTIONS

Whereas, the untimely death on November 14, 1930, of Dr. Jean F. Wolfs has deprived the Hospital of St. Barnabas of one of the most distinguished members of its staff, and,

Whereas, Dr. Wolfs served for a period of 12 years as a Clinical and Attending Surgeon, during which time he rendered faithful and efficient service to his hospital, to his community and to his city, winning the esteem and affection of all those with whom he worked, particularly his patients and his professional associates:

Therefore, be it resolved that we the members of the Medical Board of the Hospital of St. Barnabas thus formally express our deep sense of personal loss at the death of our friend and colleague, and that these resolutions be recorded in the minutes of the meeting of the Medical Board, and published in the Journal of the Medical Society of New Jersey, and also that a copy of these resolutions be transmitted to his family.

Charles L. Ill,
President.

Wm. D. Miningham,
Secretary.

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